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ECONOMICS

IN

INDIA

INAUGURAL LECTURE

BY

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ECONOMICS IN INDIA

MR. VICE-CHANCELLOR, FELLOWS, AND MEMBERS
OF THE UNIVERSITY—

The present movement for establishing chairs for advanced teaching and research in Economics in several of the Indian Universities is a reflection of the widespread interest prevalent in the country in the study of this subject. The substantial encouragement of the science of Economics undertaken by the Imperial Government of India is a very liberal and a very important step, the more so as it may well form part of a definite policy, the nature of which will appear as I proceed. The investigation of Indian Economics in the freest possible manner through the Universities is the object aimed at ; and the establishment of these chairs is a remarkable—I may even say a unique—undertaking, whether regarded as a response to the rapid growth of interest in Economics amongst Indians, or as a policy of Government to provide accurate scientific knowledge as a guide in constructive legislation. It is a happy augury for the success of the plan that the conditions attached to the occupancy of the new chairs are extremely liberal in conception, and exhibit a gratifying appreciation of the needs of higher learning.

It is, therefore, with special pride, and a sense of my good fortune, that I find myself called upon to take a part in fulfilling this design which has been so well conceived. It will be my desire to respond in the same spirit of enlightenment and efficiency ; and I believe that the teachers and students who will be directly associated with me, and my colleagues in the various colleges, will respond to the call with no less eagerness. Allahabad is remarkably well situated for the study of Indian economics, for its central situation will enable personal inquiries to be conducted into all the principal industries of the Empire by visiting the places where they are best developed. I am pleased to record, too, that I find the Provincial Government, whose headquarters is at Allahabad, most sympathetic to the promotion of economic studies. With these special advantages, and with the enthusiasm which already I find on all hands here, may we not hope that Allahabad will have the opportunity of producing in due time a school of economic thought of permanent influence and usefulness?

Let us hope that our work will be successful in the pursuit of the science for its own sake ; but even more fervently let us hope that we may be granted the power and opportunity to use the knowledge gained for the highest of all purposes—to alleviate the sufferings of the poverty-stricken, and to bring the happiness and joy of a fuller life to

millions of our fellow-subjects in this great Empire. I am thankful to say there are hundreds of educated men in this country who are fired with this ideal, who give unsparingly of their time and of their money in the hope of benefit accruing to their poorer brethren; and I am thankful also to know that the men in high authority over our peace in this land are equally zealous towards the same end. Were it possible by will power to banish poverty and sickness from the land, it would be gone to-morrow.

It is here the responsibility of the economist arises, for he it is who holds the keys by which the tortuous mazes of economic cause and effect may be passed through safely. It is the economist in particular who, with sufficient study, can trace out the paths by which advances may be securely made in the domain of economic and social reform. Economics is a very young science compared with Mathematics, Physics and Chemistry; it is but just entering upon a formal and recognised existence. Allow it time—but above all foster it, and cherish a tradition of truth and exactitude in its study—and without hesitation I predict that it will eventually achieve the most surprising benefits to the human race.

Probably you will understand better why economic studies are so important, if I explain exactly what the science of economics is. I always like to define it briefly as the science of how man strives of secure his material well-being.

Perhaps this is too abstract a statement to convey to many of you much meaning, so let me give you also the extensive definition. "Primarily economics is concerned with the wants of man and with how he satisfies them by the consumption and use of all manner of goods. It deals with the production of commodities from the earth's natural resources—with the labour in field and home, in mine, workshop and factory. It studies the use of machinery and the organisation of industry, its growth and its adjustment to the demand. Another branch deals with the exchange of goods, the theories of barter and use of money, of foreign trade, of currency, banking, credit and finance generally. Another great department of the science treats of Distribution—distribution not of goods, but of the income arising from joint efforts at production. Labour does not work unaided—the landowner must lend his land, the capitalist his store of money; in every complex industry some one must organise, direct and control labour, and the same or another man must bear the risk of loss from which no enterprise is free. The stream of goods jointly produced by all these persons they convert into a stream of money; but who shall say how much one has produced, how much another? Because of this uncertainty continues the unending controversy between Capital and Labour, the latter always claiming a greater share. But the wonderfully complex economic laws

of supply and demand do at any moment inexorably determine the distribution of the joint product between the agents of production, subject only to possible legislative interference, the results of which may be unlooked for. Distribution means then the study of the causes of changes of supply and demand and their effects in altering the subdivision of the joint product amongst the agents of production. It is the most difficult, but yet the most fascinating field of economic inquiry.

So far I have touched only on the economics of the community regarded as an aggregate of individuals. For many purposes, however, the aggregate of individuals becomes a unified social organism, and within the Nation so composed a multitude of groups of co-operating individuals are formed. It is part of the province of economics to study the economic activities of nations, and to consider national policies. Likewise the economics of co-operation—Municipal, Commercial and Social—in producing, maintaining, and consuming, is another big field of economic study.

You see how wide is the purview of the economist, even when he confines himself only to the phenomena he finds around him in the life of to-day—a course which he cannot safely pursue. The social organism is constantly growing—expanding in its activities, developing the powers of its individuals, and re-arranging its structure. The economist

is forced, therefore, to study the history of communities for centuries back, and to trace out how the economic laws manifested themselves with differing results under the different conditions prevailing in those times. Thus arises the youthful but important science known as Economic History.

Even yet I have not indicated the fulness of economic studies, for it is necessary to distinguish between two methods of work, both needed to discover and firmly establish the truth, but so different that to a great extent they must be carried out by different persons. I refer to the deductive and inductive methods, which in varying sequence and combination constitute the method of every science. Hitherto the work of economists has been mainly deductive. Taking as their premises the commonly observed facts of human nature, and a few well known economic laws discovered in agriculture and commerce, they have made an elaborate series of deductions. Observation of industrial enterprises has then supplied material with which to check and extend these deductions. The few economists who possessed mathematical gifts and training have done remarkable work in establishing economics upon its true basis as a quantitative science. Amongst them Austrian, Italian and Swiss are prominent together with English writers. They have shown that deductions in economics may be best achieved by the ordinary methods of the mathematician and by a

liberal use of graphs, or illustrative curves, which are most useful in bringing home to the eye the true nature of the economic variables met with in every branch of the science.

Economic truths established solely by the most careful deduction are, however, seldom complete—I mean that they rarely apply to any actually existing conditions in any particular country. Just as astronomers have needed to supplement their knowledge of the properties of spheres and ellipses by telescopic observations which have brought to light unsuspected deformations and perturbations of the planets and their orbits, so must the economist check by further observations his deductive efforts, however sustained and clever they may be, before he can be sure of reaching the whole truth. It would be possible for me to think out in the utmost detail how the laws of the supply of labour in different employments obtaining in the conditions of Western Europe must be modified in a country where the caste system prevails; but it would be folly to imagine that I could thus arrive sufficiently near the whole truth for my results to be used as if true. Every stage of deduction needs confirmation by fresh observations; and the whole truth of any matter can only be ascertained by an ingenious combination of deductive suggestions with continuous observation and inductive generalisations from the observed facts. Social phenomena are so complex

that no one man can collect enough facts safely to check his deductions, so that economists have to fall back upon statistics, which in modern times are extensively collected by Government and other agencies. Used with a full knowledge of their origin and meaning, which can often only be obtained by a special personal enquiry, statistics of population, prices, and so forth, are the foundation on which all exact economic generalisations must be based. The study of statistics, and the use of various complicated ways of obtaining economic laws from a multitude of facts and figures, is a special department of study in itself, and it involves work of a most lengthy and laborious character. Statistical economics is yet quite in its infancy, and much attention should be paid to developing it in the near future.

One further discrimination remains to be made before we fully understand the work of the economic investigator. A science is termed a *pure*, or *positive*, science when knowledge is accumulated solely with a view to discovering the truth for its own sake. In the positive science there is no question of deciding what men ought to do and how they should do it. A positive science, such as Chemistry, Physics or Zoology, simply describes things as they are, and investigates the relations of cause and effect amongst the different phenomena. Economics—using the term in its proper and restricted sense—is a positive

science—an ordered body of knowledge observing and describing the industrial and commercial world as it exists to-day, and discovering the causal relationships of the phenomena of prices, wages, rent depressions of trade, etc.

Much literature of an economic character, however, is not concerned with the pure science of economics, but falls under two other headings. Some of it is written with a view to advocating a new standard of economic relationships. It is urged, for example, that competition must always be regarded as oppressive on comparatively poor persons, and that it should be modified ; or that an approximate equalisation of incomes should be aimed at. This branch of study is conveniently termed *ethical economics*, and it discusses the relative economic advantages and disabilities of different persons and classes of people, and upon what grounds, or with what aims, alterations of economic status should be attempted. Moral standards of judgment come into use here, whereas in the positive science, which is concerned only with the investigation of facts as they are, they have no application. Keynes calls ethical economics a *normative* or *regulative* science, and defines its object as the *determination of ideals*.¹

The remaining branch of economic study is devoted to devising means whereby certain aims or

¹ *Scope and Method of Political Economy*, 3rd edn., p. 35.

ideals may be achieved in practice. It is an *art* or *applied science* of economics, just in the same sense that we have an art of weaving, forestry or engineering, or an applied science of chemistry. All of these subjects are studied with a view to securing specific benefits to mankind, and they utilize the knowledge accumulated by the positive sciences. Thus engineering applies the knowledge provided by physics in order to construct huge bridges and wonderful electric motors and wireless telegraphs. It is a convenient nomenclature—one often used—to call the applied science an *art* to distinguish it from the positive science which is simply called a *science*; and this is correct, for a science is satisfied with knowledge as its end, but an art pursues what is useful or beautiful so as to please or benefit mankind.

Probably there is no subject in which it is easier to go astray by slipshod thinking than in economics. We have to distinguish carefully and continually the positive from the ethical science, and both from the art of economics; for writers who have failed to do so have often been grievously misunderstood. When studying the science we shall observe things as they are, describe all the multifarious activities of the peasant and the merchant, the miner and the manufacturer. We shall try to account for the phenomena we observe, to determine why prices rise, what has caused one class of

labour to be paid higher than another, or the rents of certain lands to rise, of others, perhaps, to fall. There is to be no wish behind our work to bias our conclusions—we shall work solely to know the truth about things as they are, and the whole truth so far as it may be attainable.

But the economist may turn his attention from time to time to the art of economics—indeed he ought to do so. The end in view will generally be the material benefit of the people, or of a particular class of the people, or of some particular country. It is proposed to attain this benefit either by some action of individuals, as in a boycott, or by voluntary associations or corporate bodies, by municipal ownership and operation, or by the executive or legislative functions of the State. The part to be played by the art of economics is to determine what kind of action in any one of these ways will best conduce to the desired result, and also to predict what concurrent or after effects may be expected, so that steps may be taken to eliminate or nullify those results which are undesirable. For instance, if it be desired to shift the burden of taxation, or to regulate banking ; to oust usurious money-lenders, or to provide peasant cultivators with better cottages ; to improve sanitation in the towns or to extend education to the agriculturalists—all those are questions upon which economics as an art may afford valuable advice—advice founded upon a special

investigation of facts and upon deductions from the known generalisations of the positive science of economics.

The art of economics must always attract anyone who has the welfare of his fellowmen at heart and feels that he possesses knowledge which may help them. Whilst the duties of this chair will be mainly to conduct research in and to teach the pure science of economics, with special, though not exclusive, reference to India, I hope, therefore, that there may be opportunities from time to time to investigate, together with my students, particular practical questions arising in connection with proposed reforms which may be occupying the attention of the public or of the Government.

It is very necessary, however, that others should work with me. The possibilities of advantage to India do not depend only upon the labours of my colleagues in the affiliated colleges and myself and our successors. We cannot create a permanent school of economic thought in India unless we have the intellectual material with which to build. Economics is one of the most difficult subjects ever studied, requiring for its thorough comprehension, and especially for original research, intellectual ability and educational qualifications of a high order. In England I have been much discouraged by seeing the cleverest young men passing my department by in order to train themselves either for one of the

learned professions or for an academic career in one of the older sciences ; or in a few cases to go into business or Government service. I know many such Englishmen who devote much of their spare time in after life to social and political work, with the sole object of benefiting their fellowmen ; but who having received no training in economics, accomplish little that is of lasting utility.

From the few inquiries I have yet been able to make here, I fear that the same trouble is to some extent prevalent in India. The clever students think they can get on better in the more established subjects of study, and some of them when they have graduated, if they become interested in public questions, seem to think that proficiency in languages or law, in mathematics or chemistry, entitles them to give utterance to their opinions on questions of economic art—on tariffs, taxation, establishment of industries—which only the soundest knowledge of economic science can qualify a man to understand.

The remedy would appear to be two-fold. The powers that be might recognise the growing importance of economics and reserve an adequate number of well-paid posts for men who have made a special study of the science. Young men would then feel that a training in economics opened to them as wide a field and ensured them in after life as honourable a career, with as good possibilities of advancement, as any other subject of study. The men

of intellect and ability would then no longer pass it by. At the same time, I would urge that a duty lies upon all students, and particularly on those who are finding themselves successful in their academic career, to consider earnestly whether they do not possess gifts and abilities which, if they were to make a serious study of economics, might be turned to the greatest advantage of their country. Patriotism can be displayed in the lecture-room and the laboratory equally as well as on the battle-field ; and the opportunity in the former case is continuous, and in the latter, one is thankful to say, but rare. None deserve higher praise than the young men in the Universities of England and of India who devote themselves for years after graduating mainly to scientific research, subsisting on an insufficient salary paid for a certain amount of teaching work, their best energies being devoted to patient and laborious research work which often proves of the greatest value to their country and to mankind as a whole, though usually it brings them little or no pecuniary reward.

That spirit of self-sacrifice is wanted amongst increasing numbers in this great Empire ; it is wanted particularly in economics and the kindred social sciences, for truly the problems of an economic character awaiting solution are gigantic. There are certain ways, too, in which India may be said to be peculiarly dependent upon the science and the art of economics for progress in social legislation. India

is the greatest unit of civilised government in the world, counting, as we should, by population. China will, I suppose, be our great rival in the future ; but as yet in China there is no authority which can even keep the peace throughout the land, not to speak of reforming the currency and purging the administration of corruption in high places. Trade can flourish only in restricted areas.

2.1 In India the foundations of prosperity and progress have been laid already. Peace has been maintained throughout the land for half a century at the minimum of cost ; protection from external enemies has been enjoyed almost for nothing, whilst the nations of Europe and Northern Asia have been groaning under armaments and war. I cannot think of any other country in the world of 200 millions of inhabitants or more that has enjoyed unbroken peace for fifty years.¹ And to public security, which is always the first essential of trade and of the people's happiness, has been added the development of great railway systems, and the establishment of a stable currency upon an international basis.

2.2 The Eiffel Tower of Paris, the loftiest structure in the world, stands upon four shafts and gracefully rears its height far into the freedom of the sky. Just so is the prosperity of a nation built high in complete freedom of trade upon a four-fold basis of

¹ I omit the Frontier Provinces, and disregard civil disturbances having the local character of riots.

Government action ; and the four feet upon which prosperity stands are peace, railways, a good currency, and the education of the people. India enjoys the first three in good measure ; she has peace with justice, she has railways charging low freights, and she has a convenient and stable currency. She is now only partaking with the rest of the world in the general rise of prices. A complete measure of general education, which is in most countries the last of the four essentials to be obtained, she has yet to evolve, however ; and I am satisfied that it is a problem of the most vital economic significance to the country, transcending even the need for more extended irrigation works.

23 India, as I have said, has made remarkable progress in the three first governmental essentials of a country's prosperity. The Empire would now be advancing more obviously, however, if it were not that one of the first results of progress is to create new problems which clamour insistently for solution. For instance, the establishment of a stable and adequate currency promotes the growth of banking ; and if banks are not rigorously controlled many of them may collapse, bringing ruin and suffering upon hundreds of thousands. Such a financial crisis, which tends to become the more serious the longer unregulated banking has been growing, may even affect the stability of the currency system which has made its development possible.

A more difficult and serious problem confronts us, however, in the mere growth of the numbers of the people. This is caused mainly by the establishment of internal quietude and of transit facilities, which have removed the positive checks to increase of population formerly caused by deaths of violence and the ravages of famine—or by diseases following in its train. Those of you who have not read Malthus's vivid Essay on Population, more than a century old, may have a difficulty in clearly realising what the pressure of the population on the limits of subsistence means. The text-books of economics generally fail to give adequate emphasis to Malthus's law, because in countries which are advancing industrially and socially the law operates in a manner widely divergent from his statement of it. Let us consider for a moment, therefore, the condition of the agricultural and labouring population in India, and see what checks are now in operation limiting its increase.

2. Although the statistics available are not accurate, they show clearly enough that in India a high birth-rate is accompanied by a shockingly high rate of infant mortality, and a very high death-rate. The fact of primary importance, however, is the high birth-rate; for so long as the population tends to increase relatively faster than the means of subsistence, there must continue to be a high death-rate due to poverty and disease. Any one who

reads the chapter on Vital Statistics in the *Imperial Gazetteer of India*¹ cannot fail to be impressed with the terrible nature of the struggle to obtain a bare subsistence in which the majority of the population are almost continuously engaged. The author estimates that out of 232 millions of persons living in British India, there are at any one time about 28 millions sick from all causes, most of them traceable to food being bad in quality or insufficient in quantity. He adds that the sickness "often involves a lower rate of wages for labourers, and everywhere depresses the moral and physical character, and so forms a potent source of poverty."² The chapter on Famines contains further evidence³ :— "The increase of population," it states, "has been great amongst the poorer cultivators and agricultural labours.....Industries are growing up, but as yet they draw only small numbers off the land, occupation being still prescribed by inheritance and tradition. Pressure, therefore, increases where it is already greatest. Holdings already small are subdivided, or sublet at competition rents, while the supply of agricultural labour outruns the demand for it....." And further on we read again, "Agricultural labourers, as already stated, are multiplying rapidly on the margin of subsistence and beyond the requirements of

¹ Vol. I, Chap. X, 1907, p. 500.

² Public Health and Vital Statistics, by A. E. Roberts, *Imp. Gaz.*, Vol. I, pp. 515-6.

³ Vol III, pp. 477, 499, etc.

agriculture, and by so doing are keeping their own wages low.....Agricultural progress will do little to improve their position." The last sentence indicates that the author fully understands the peculiar action of economic forces in depriving a numerous proletariat of participation in the increasing wealth of a country.

Every measure of reform—social, educational, sanitary and political—is bound up with rescuing the mass of the people from the condition of poverty bordering upon destitution in which they are kept remorselessly pressed down by their increasing numbers. Yet the population is almost sure to go on increasing faster than the means of subsistence, if present conditions are maintained. The tremendous nature of the problem becomes apparent when it is realised that the population of India might easily double itself every 30 years, assuming disease and death-rates to be reduced by abundant nourishment being available, and that the sanitary measures prevailing in England were introduced. In 1881 the population of India was over 253 millions, and it might have increased to 506 millions in 1911 instead of only to 315 millions. Undoubtedly the population would have reached 500 millions, but for the positive check imposed by actual want of food.

27 Suppose that we largely remove this check by extending cultivation, promoting irrigation, and

improving the methods of agriculture, so that the bulk of produce annually raised is greatly increased—how would the increased total wealth be distributed? So far as more land is cultivated, or more intensive methods are adopted, there would be a gradually increasing demand for labour, to which the supply would readily respond, because children and adults who now die would live, and also the birth-rate would increase.¹

It would only be necessary for cultivators to pay a subsistence wage to secure labour, and therefore no more would be paid. Whenever crops fell short there would still be serious unemployment necessitating public relief to prevent thousands being starved; and the only important change from present conditions would be that the numbers to be relieved would be larger. The great increase of wealth resulting from extended and improved culture would not go to increasing the real wages of labourers, and only in a small degree to the tenant farmers who adopted the improvements,² but would go almost entirely to the landlords, including tenants with proprietary interest, and to the money-lenders and grain merchants wherever they had a virtual monopoly, which it is easy for them to make by the simplest combination.

¹ *Imp. Gaz.*, Vol. I. 1907, p. 509.

² The deductive inference is that the tenant farmers who introduced the improved methods would benefit at first, but would lose much of the benefit when the improvements became general.

Suppose, again, that industrial developments proceed in India as they have begun—that more factories are built, mines opened, and iron and steel works started—will this enrich the labouring class? I think not. It would produce high wages only for a comparatively small number of skilled employees. For the unskilled work there would generally be a full supply of labour available at a bare subsistence wage. There is only one condition in which this would not be true, and that is that the demand should increase with a sudden spurt. With isolated local exceptions, there has been no sudden growth of industrial demand for labour in India yet—only a slow steady expansion which the normal increase of population meets at little more than subsistence wages.

2. We are now brought face to face with an ethical question, an excellent example of ethical economics. There stand clearly before us two alternative goals. We may, on the one hand, aim at such measures as will increase the wealth of the country, and hand that wealth over almost completely to the landowning, commercial and capitalist classes—a hierarchy of wealth built and resting upon the labour of a vast proletariat, sunk in poverty and destitution. On the other hand, we may aim at giving the actual cultivators and the manual workers a larger share of the national income. We may aim at securing them a rate of wages sufficient to keep

them in decent comfort and normally free from destitution, like the working classes of Western Europe, this enhanced wage being earned in hours which leave them leisure for self-improvement and the enjoyment of life. At the same time the intention would be to allow the landowners, merchants and manufacturers a perfectly satisfactory return for the services they would render.

Contrasted in this way, there can be little doubt as to which alternative should be chosen. For myself I may as well state quite clearly once and for all that I shall always assume the second ideal, if I make any proposals or suggestions as to reforms. I shall take it that the aim throughout India should be to raise the remuneration of all grades of manual workers to such a level as will give them independence, permit a higher standard of living, procure freedom from grinding care, from sickness, and from those long hours of labour which allow no respite for self-realisation. A numerous population is never in itself an ideal worth aiming at. In so far as it is possible to control the number of children born into the world, it is far better that they should be few, and grow up to live comparatively happy, humane lives than that they should be many and be consigned to bestial degradation.

The question of what measures can best be adopted in order to attain this ideal is a problem of economic art far too intricate and extensive for me

to deal with now. It is impossible to assume that the causes which are known to restrict the birth-rate in Western European countries are applicable to India, so that the whole subject needs investigation *ab initio* in its economic aspects. There is, however, one suggestion which I can make with a good deal of confidence, and which I think you will find interesting, so that perhaps I may be pardoned for extending an already lengthy illustration of my main theme.

I need hardly remind you that a sudden increase of demand for labour means usually that higher wages are paid, so as to attract a sufficient number of work-people. I am told by large employers of labour in India that this does not generally hold good in this country, because if you pay your factory operatives or miners a higher wage, they simply go home to their villages all the sooner, having no object in saving more than a certain amount. In limited areas, however, a settled industrial population is already being formed, and I think it will be agreed that the transformation should be stimulated as much as possible. As suitable means to this end I would suggest the diffusion of practical elementary education, and also a policy of introducing people to better cottages, better food, and healthy recreation. I believe that without much difficulty the labouring class could be taught to enjoy, and work for, a regular income, if decent cottages with a small plot

of land attached were provided where their industrial work is located, and if they be saved from the temptations of drink and drugs.

In suitable districts where universal elementary education has been established, and is providing by information and suggestion an industrially inclined population, the time will be ripe for a rapid industrial development. Now, the point which I wish to emphasise is that industrial development when it does come should be very rapid, so that for twenty or thirty years the growth of demand for labour may quite outstrip the local growth of supply arising from any possible natural increase of the indigenous population of the district. Wages must, therefore, rise to a level sufficient to attract immigrants from a distance; and this level will be considerably above the subsistence minimum. It is only necessary for such high wages to persist for several years for the working population to adapt its permanent habits to the high level of earnings, which thus becomes fixed. The artisan and labouring classes, when they become accustomed to a higher standard of living, cling to it tenaciously; and, if necessary, protect themselves by combination against a threatened decrease. At the same time, because they are paid more, and live on better food, have more leisure, and are educated and intelligent, they become steadier and more efficient workmen, so that in the end their labour is

not any dearer to the manufacturer. It may even be cheaper.

35 We may now consider the results of the alternative policy of permitting a slow industrial development, which in most districts will be the result of letting things drift. If the population ripens slowly and the industrial awakening is gradual, because not enough capital and enterprise are available, there will not be a sufficient shortage of labour created. The increasing demand for labour will at no time outrun the increasing supply due to the natural increase of population. Wages rates will, therefore, remain low, and the people will be shiftless and degraded, unsteady in work and comparatively inefficient. The manufacturer must always adapt his business to the type of labour he finds available; and so with such a population the products will be cheap, low-quality goods, which are the only kind that can be made by poorly-paid, half-skilled working men and women.

36 The moral to be drawn from these deductions is that when the ground has been prepared throughout a province or large district, steps should be taken to create and stimulate a very rapid industrial transformation upon well conceived lines, utilising to the full all the natural resources of the area in course of development and its surrounding country.

37 There is no need for me to give further illustrations of the economic problems which confront

the Government of this country. There will generally be economic difficulties to which it is absolutely necessary that the attention of Government be turned; but there will also always be economic measures which would have beneficial results if the Government were to undertake them. It is obvious that if the right solution of all the problems is to be found as they present themselves, and if the Government is to be able to proceed with certainty in its constructive legislation, it is of the highest importance that economics should be scientifically studied in all parts of India.

In every country legislation, and executive action, will be facilitated by the progress of economic science and research; but to governments of the type prevailing in India the expert assistance of trained economic investigators is of especial importance. It is easy to see why this is so if we compare the essential features of the democratic and bureaucratic types of government.

In every country where an elected Parliament is supreme, and controls the Cabinet, legislation proceeds by means of a contest or balance of conflicting interests. In actually drafting a particular bill technical experts, such as engineers, lawyers, and so forth are, of course, consulted; but experts in the science and art of economics are not called in although they could give most valuable advice as to the general policy of a bill and as to the ulterior economic effects

of the proposed legislation. That aspect of the matter is usually ignored.

4. The contesting parties who force their claims on the government in power will have nothing to do with economics unless they can use it, or pervert the statements of its professors, to strengthen their case. The particular interests that secure the introduction of a bill know their own immediate object and how they wish to attain it, and they are impatient of a science, which they do not understand, presuming to tell them their own business, and warn them of possible evil after effects. The position of the government, unless it happen to have a great majority, does not enable it to consider in a scientific manner the general trend of its economic policy. It is more generally engaged in acting as an arbitrator between opposing factions on questions which continually force themselves to the front, and in recording as laws the best compromises it can effect.

5. A democracy is an inchoate mass which struggles forward slowly in the improvement of its own condition by a prodigious amount of effort in propaganda and conflict. It is always an immediate grievance which interests the mass of the people, and in proportion as the franchise is widened and the voters actually control the legislature so does the latter become increasingly conservative in temperament. It merely registers in its acts the changes

already brought about by industrial and social development. It cannot lead or direct national progress. (1) A truly democratic government is almost devoid of initiative, whether in developing the resources of the state or in improving the condition of the people. The people at large will not willingly accept a temporary small sacrifice in money, and particularly in change of habits, in order to reap much benefit for the nation a few years later. Not one elector in a hundred can understand a scientific argument; consequently every reform the benefit of which can only be realised by a trained mind must either be rushed through Parliament before the public can fully realise what is being done, or be abandoned. In England the National Health Insurance Act, and the Daylight Saving Bill are cases in point.

Let me take a very practical example to illustrate what I mean. We have in India the most scientific coin of small denomination I have ever seen in any country—the one-anna nickel piece. It is just the right size and weight, and the lobes on the edge make it easily distinguishable by feel from any other coin. You know what a big cumbrous bronze coin the English penny of the same value is. I have often thought whether I would try to start a movement in England to alter the penny to a small nickel coin like the anna, but have decided it is not worth the labour, the chances of success being so

small. Having formed a special association for propaganda, and having got a number of organisations to support the change, there would arise an overwhelming opposition composed of the financial interests connected with the automatic machine companies, the unreasoning prejudice of the public, and ridicule of the comic papers. So that a simple reform, which can be accomplished by a stroke of the pen in India, is a work of such magnitude in England that no individual and no government cares to take the initiative. If one goes from such a simple question as this to the reforms of an economic character affecting the wages and social organisation of the people in which science may show that it is advantageous the government should interfere, what chance is there in a democracy of anything but the slowest progress? Is it possible to make many millions of electors understand complicated economic questions? In Australia and New Zealand, which have the most intelligent electorate in the world, there are more mistakes made in economic legislation than in most countries—I suppose because a little knowledge is a dangerous thing. The bulk of electors, and even the majority of members of Parliament, are chosen for their powers of oratory, not for their wisdom, and know very little of economics.

/// In the Chair I held at Cardiff it was my duty to lecture on political theory as well as economics; and I have taken every opportunity of observing party

government at work in England, Australia, and America. As a result I say without hesitation that a bureaucracy advised by scientific experts, consulting with representatives of all classes and sections of the people, but not controlled by them, is the type of Government which will ensure the most safe and rapid progress. 5967

The principal merit of a popularly elected Parliament is that it acts as a check upon a government which may make mistakes through ignorance, or is negligent in the discharge of its trust, or has not really the interests of the people at heart. In the past a popularly elected assembly has been a necessary, although always a clumsy, form of check. But now the developments of the human sciences, particularly economics and sociology, is for the first time in the world's history making the scientific form of government possible.

For such a type of government to be the most advantageous, however, the first essential is that it should be conscientious in the discharge of its duty of promoting the welfare of the subjects. Fortunately there is no question as to the good intentions of the Imperial and Provincial Governments of India; but the difficulty lies in translating benevolence into beneficence. Let us hope that it will be the privilege of the Universities, together with the statistical and technical departments of the Governments, the duties of which will be soon ably fulfilled

by many Indians, to provide the knowledge which will enable that gap to be permanently bridged. So may India flourish, and emerge from the great traditions of the past to lead the world anew in commerce and in learning.

.One final word ; lest my repeated reference to the Government undertaking economic measures should lead any one to suppose that I overlook the enormous importance to the nation of individual initiative and enterprise. There are certain things which a government must do, and there are many other things which can be far better done by the State than by private enterprise ; but there should be no disposition to rely upon Government initiative, except in the well-defined sphere of public utility services. In every branch of industry and commerce, art and learning, it is the activities of individuals that constitute the real life of the nation ; and both competition and co-operation should be fostered because each is capable of imparting valuable qualities to the race as well as great advantages to the individual. And further we may perceive that the highest form of co-operation is co-operation with the Government. How wonderfully this is realised in a national emergency ! There are thousands of instances, however, where such co-operation would be of the greatest advantage to the country in times of peace. The field is particularly wide in educational enterprises, and in the general field of

economic and social reform. Here then we see the importance not only of investigating economics, but also of diffusing a knowledge of it widely and well. Both lectures and books are needed which shall interpret in plain language the wonderful and complex truths of the interactions of men upon each other in the ceaseless struggle for existence, and for the attainment of comfort and happiness; and it is to the Universities that the public must look for them. India is so large and so varied that a small army of devoted students of economics is needed, who are to become investigators and lecturers. It is for the right men to come forward and meet their country's needs. They may be assured that there is no more fascinating subject of study for any industrious person gifted with a clear intelligence and a broad fund of human sympathy.

ADDENDUM

"As the foregoing lecture is being published I would like to add that readers should bear in mind that it is an inaugural lecture, and as such aims simply at indicating how the study of Economics in India may be of special benefit to the country. Various matters are referred to by way of illustration ; but in no case is the brief allusion here made to be regarded as an adequate discussion of such complex questions. They all require further prolonged investigation, which it is the main object of the Economics Department of this University to undertake.

I cannot help hoping that this print of my lecture may fall into the hands of some, who may feel prompted by things I have said to do what they can to assist in the development of the study of Economics in India, particularly by the establishment of an adequate school of Economic studies at Allahabad. I can assure generously disposed persons that there are many ways in which they can help. For instance, landed proprietors and business men can often give Economists most valuable information if they are willing to disclose the details of their affairs for the purely confidential use of the department. I propose to keep a register of persons willing to do this, so that whenever the special information which any person possesses seems likely

to be of service for a particular question under investigation, the University Professor may always have the advantage of immediate access to it. The names of persons and business firms generous enough to give information will be kept from publication and in every way strictly confidential if they should so desire.

Help can also be given in another way. The University needs a big Library of Economic and Commercial literature and of Statistical publications. Although the Imperial Government has made a grant to enable it to secure the most necessary books, there are several thousands more which it would be the greatest advantage to have. Hence gifts to the University Library of books, or of money to purchase them, will always be most welcome.

Another difficulty is that some of the most promising students who would be ready to give three years or more to research work under my direction may be quite unable by the circumstances of their family to support themselves for so long a time ; and, as I am obliged to insist upon research students giving their whole time to the work for the first two or three years, there is every likelihood that some such students may be lost to the department unless an adequate number of Research Scholarships can be established. Here is an opportunity for benefactions of the most useful kind. I shall always

be glad to answer any inquiries in regard to these matters.

H. STANLEY JEVONS

UNIVERSITY PROFESSOR OF ECONOMICS

Senate House

Allahabad

15th February 1915

THE
CONSOLIDATION OF
AGRICULTURAL HOLDINGS
IN THE
UNITED PROVINCES

By the same Author

Essays on Economics

The Sun's Heat and Trade Activity

The British Coal Trade

Economics in India

The Art of Economic Development

**THE
CONSOLIDATION OF
AGRICULTURAL HOLDINGS
IN THE
UNITED PROVINCES**

BY
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PREFACE

Much of the subject-matter of this bulletin was formulated by me for the first time at a lecture delivered at the Agra College, Agra, on the 8th January 1917, and it afterwards formed one of my public lectures delivered at the University of Allahabad during February 1917. As it now stands this bulletin was first written out and printed as a paper to be read before the Agricultural Conference held at Poona, December 10th to 15th, 1917. It was circulated in print just prior to the meeting, was read on December 10th, and is now issued, a few weeks later, in the form of this bulletin without alteration, except the addition of the Contents and the Appendix.

THE
CONSOLIDATION OF
AGRICULTURAL HOLDINGS
IN THE
UNITED PROVINCES

PART I

THEORETICAL INTRODUCTION

In a paper on the Capitalistic Development of Agriculture which I prepared for the meeting of the Industrial Conference at Bombay in December, 1915, will be found set forth the theoretical considerations which prove unquestionably that the road for India's material advancement is through the increase of the productivity of agriculture. The present paper is an attempt to outline, so far as relates to the United Provinces, one of the most important practical steps which are necessary in order to realise a capitalistic development of agriculture. Needless to say, the investigations of numerous agricultural experts extending over many years have given us a vast and most valuable body of knowledge as to soils, crops, manures and methods of cultivation. The difficulty now is not so much to make further scientific and technical discoveries as to make use of those we have. The huge agricultural population seems to be obsessed by a most obstinate inertia, so that the numerous efforts converging on it from without have on

appreciable result. Agricultural instruction is offered, co-operation is fostered, selected seed is distributed ; but very many thousands who know of these offers of aid will not, or cannot, avail themselves of them. There would appear to be a moral apathy ; an appalling absence of ambition ; a fatalistic acceptance by the cultivator of his present limited means of subsistence and low standard of living.

My own observations do not altogether support this view. Speaking of the younger generation of ryots whose habits of thought are not entirely fixed, I believe the cultivator is as keen to improve his position, and to adopt any means within his reach which he believes will attain that end, as anyone in India. Ambition is soon crushed out of him, however, by the appalling dead-weight of physical, legal and social conditions which he cannot change. His local obligations are extraordinarily onerous. There are stringent family obligations, besides those directly connected with his occupation. He is not a free man, as we understand personal freedom in England. In recent decades he has been further hampered by the growth of population causing competition for land, so that rents have risen considerably in zemindari tracts, and the cultivator there has got little advantage from the rise of prices of agricultural produce.

It is an economic law of the very first importance that the earnings of any class, whether wage earners or independent workers, like the cultivators, tend to conform to their standard of living which it is usually, though not always, more difficult to change, either upwards or downwards, than the average money income of the class. The standard of living is raised chiefly by two agencies : education and travel. A rise of the standard of living without

the expansion of the means of gratifying it produces discontent almost as severe as a sudden fall of real earnings (*i.e.*, income relatively to retail prices). When the standard of living remains unchanged an increase of earnings without a corresponding increase of the standard of living simply reduces the amount of work done by the people in question. They become lazy and apathetic, and lose those sturdy and manly qualities which are produced by a wrestle with nature which is hard, but not hopeless.

In undertaking any great reform in agriculture, it has, therefore, to be borne in mind that the tendency will be for the beneficial possibilities in increased income to be whittled away—(1) in ryotwari tracts and the Punjab colonies, by a growth of apathy and idleness; (2) in zemindari tracts by increase of rentals (only slightly retarded where occupancy rights prevail); (3) in tracts of both tenures by an increase of population and diminution of size of holdings.

In absence of any great catastrophe such as famine plague or war, the standard of living alters slowly. It appears also to be true that the more educated a population is and the higher its present standard of living the faster will a further rise take place, and the greater will be the resistance to a fall of the standard of living. In England a new standard of living becomes fixed after persisting for only three or four years. In India probably prosperity must continue longer for the habits of life to become changed and adapt themselves to a higher scale of living and for this in its turn to become a habit.

It is not to be supposed, however, that the standard of living is, so to speak, the independent variable, to which the rate of earnings will sooner or later conform. There is here, as in almost every economic quantity, a case of action and reaction. The resultant is an equilibrium

between the opposing forces, which forces are, however, themselves continually in a state of flux, more or less. The rate of earnings in any employment at any moment may be regarded as the resultant of an equilibrium between the standard of living and the marginal productivity of labour, the latter determining the demand for labour in that employment, the former determining the supply. The problem before us, therefore, is to increase the marginal productivity of labour in agriculture and at the same time to raise the standard of living of the cultivating classes, including labourers, so that they will feel it worth their while to supply additional labour by working a larger percentage of their time or with greater energy.

Once a higher standard of living has been established, the economic forces of degeneration, such as growth of population, which tend to rob the cultivator of the net produce of his additional exertion, encounter a very strong force of opposition. Persons having a high standard of living will go out of the cultivating business rather than suffer a considerable diminution of their standard of living; and they can do this by migrating to the towns where industries are springing up.

Whilst the standard of living and the marginal productivity of labour are at any moment in a state of equilibrium with one another, or are tending towards it, we must note that any change in the one has an effect in the future on the other. For example, a lower marginal productivity of labour will mean lower earnings and the possibility of maintaining only a lower standard of living. Result: the workers, after some unrest gradually become accustomed to this low standard of living, and it tends to become fixed. Again, any higher standard of living means increased efficiency, for work is done more

intelligently and for longer hours. This enables a more advanced organisation of production to be undertaken; this raises the marginal productivity of labour, which in its turn provides increased earnings, and a margin permitting the standard of living to rise still further.

There is thus a reciprocal effect of the rate of earnings and standard of living upon one another. This effect is often slow in acting, the necessary adjustments taking place in a few years: 3, 5, 10 or 15 according to circumstances. On the side of the demand for labour the marginal productivity is determined at any time by the actual physical conditions of the instruments of production and by the state of business organisation and the demand for the commodity produced, the latter, in the case of staple commodities, being measured by their prices in the large markets. In the manufacturing industries the instruments of production are constantly changing through the invention of new machinery, the building of new factories, and so forth. In agriculture, however, there is a peculiar fixity of the instruments of production apparently due to the special part played by land and the natural agents in all agricultural production and to its immobility. It is a peculiar and most important sociological fact that the laws and customs regulating ownership and use of land have a stronger tendency to persist than any other characteristic of society. The sentimental attachment of the people to the land, the importance of land as family property in all countries until the industrial revolution has been passed through, together with the inertia arising from long-formed habits, all contribute to making both the physical and legal conditions of land tenure extremely persistent and difficult to alter by any extraneous action other than the *force majeure* of the law.

It is important for us to note that the physical condition of the land as regards not only its fertility, but its division into fields, as well as the legal conditions of tenure, have a decisive influence on the marginal productivity of labour in agriculture, and consequently indirectly upon the standard of living. The only change in physical condition which, in the present constitution of Indian society, is not resisted, is the subdivision of the agricultural holdings in ownership which arises from the prevailing laws of inheritance, both Hindu and Mahomedan. It would appear that this subdivision of holdings has been a sufficiently slow and gradual process in certain districts to allow the resulting decrease of the marginal productivity of labour to bring down the standard of living with it, perhaps almost to the same extent. I cannot cite any definite proof of the decline of the standard of living, but am inclined to think that it has taken place in certain districts where security of life and property was well established whilst the population was still sparse. Certainly there is a danger of the fairly high standard of living which is being created in some parts of the Punjab canal colonies slowly degenerating unless the two agents for raising the standard of living—education and travel—are vigorously applied.

From the foregoing considerations a conclusion of the highest importance follows. The inertia of the land tenure and customs causes the standard of living to become fixed at a level corresponding with the physical condition of the land. The consolidation of scattered holdings by re-stripping will create a new physical condition and allow greater efficiency of agricultural methods and thus a higher marginal productivity of labour and a higher standard of living. The mere rearrangement of fields into

compact holdings will not, however, affect the average size of the holdings; and it will not, of itself, do much to prevent the continuance of the process which is mainly responsible for the present condition of holdings. These will continue to degenerate by further subdivisions, although remaining homogeneous at first; and the degeneration will be so slow that it will carry the standard of living down with it.

It would appear extremely unlikely that any external regulation can prevent the growth of population producing a further subdivision of the unit of cultivation which is the important aspect of the question. Further subdivision of ownership might be prevented by refusing perfect partition so as to produce any field or group of contiguous fields less than 6 acres in area. Enforcement of any law of primogeniture would be impossible; but a system of officially recognised trustees of estates imperfectly parted might possibly be devised.

This, however, would not really affect the question of the size of the unit of cultivation which is all-important from the point of view of improved agriculture; and so long as the ryot is content to cultivate a holding of less than 10 acres in area as his principal, or only source of livelihood, so long will he do it in spite of any laws to the contrary, and lettings to tenants, occupancy and non-occupancy, will be made on that basis.

The only remedy for the evil tendency to a reduction of the average size of the unit of cultivation is by raising the standard of living so that people will refuse to cultivate small holdings and will seek occupations elsewhere rather than do so. This postulates the existence of openings in occupations elsewhere and these are undoubtedly arising in industries, and could be made available by the opening

of waste lands for settlement in the Central Provinces, Assam, Punjab, and certain Native States. If the importance of such emigration were realised it could be properly organised. But unless migration is assisted and so comes to be regarded as a lesser evil than the lowering of the standard of living we shall have renewed reduction of the size of the holdings cultivated.

I have already stated that the higher the standard of living becomes raised amongst a population the more tenaciously do the people cling to it. If the standard of living be raised but a little it may easily deteriorate; if it be raised to a considerably higher level there will be a far more than proportionate increase of the resistance to the economic forces tending to lower the standard of living.

The conclusion which I think is justified from the foregoing considerations is that the only way to effect a permanent increase of the standard of living is to raise it at one stroke—that is to say within a very few years—by reorganisation of holdings so as not only to consolidate them but also greatly to increase the average size. It would be necessary, of course, that all remedial measures should be put into operation at once—the re-stripping of holdings; re-grouping so as to produce a larger average holding, with the concomitant removal of the surplus population; accompanied by definite demonstrations of improved agricultural methods on the reorganised village holdings, and the compulsory education of all children with a view to raising the standard of living. Improved communications designed to bring a metalled road to every *abadi* would be a necessary part of this reorganisation of rural life. I wish to record my opinion that it is almost useless to undertake these measures piecemeal. The forces of degeneration are so strong with the

existence of a low standard of living that each measure of reform would be successively defeated. Far better results would be obtained by making a combination of agricultural and educational reforms in one district at a time, maintaining the special measures of education for a sufficiently long period of time for a new and considerably higher standard of living to become fixed as a habit amongst a population.

Such a plan as I have outlined postulates a very considerable expenditure of public money in any district which should thus be put under a reorganisation. There cannot be any question, however, in my own mind that this expenditure will be amply justified and repaid by the results that will be obtained. With larger holdings cultivated by machinery co-operatively owned, the produce per acre would be increased by 50 to 100 per cent in different lands. The net social income after providing for the subsistence of the agricultural population at the higher standard of living supposed, would be sufficient to support a very much higher taxation. The question of the manner of collecting additional revenue is of no importance. It could certainly be collected because there would be so much more income from which it could be paid. The district would, therefore, be more than self-supporting after the first few years, and could not only pay the interest upon any loan that might have been contracted for making roads or other works, but could also contribute proportionately a greater share than formerly to the general revenue of the province thus making equitable repayment of the special expenditure which had been lavished on it in the early years of the reorganisation. For a fuller discussion of the growth of social income from public works I would refer the reader

to an article on The Art of Economic Development recently published by me in the "Indian Journal of Economics."*

So far as I am aware the relevant economic principles have been sufficiently considered in the foregoing introduction. I have stated them in terms of the zemindari system of land tenure; but the statement would differ in no essential feature when applied to ryotwari tenure, for the State may here be regarded as the landlord, but one of a benevolent disposition, in most places refraining from taking a full economic rent. The reorganisation will be more beneficial in the ryotwari than in the zemindari districts provided the standard of living is sufficiently raised; but its benefits will be more transitory if the standard of living is not sufficiently raised because the larger margin of profit to the cultivator will merely enable population to increase faster and the subdivision of holdings to proceed so much the faster.

The principles which I have stated are in fact independent of law, being based upon the primary economic instincts of mankind. I do not think it necessary to discuss the legal aspect of such a reorganisation because it appears to me that this is one of those fundamental reforms in which all existing law must be swept aside, the resettlement being based upon common principles of expediency and justice. Although it may be held that there are certain family rights of property in land, the loss of which can never be compensated fully by any money payment which would be within the financial possibilities of any scheme of reorganisation, yet I am convinced that the State must adopt the policy that rights which cannot be more satisfactorily adjusted by other means, as by the allotment of land in the reorganised village, or in some

* Vol. II, Part I, p. 47.

distant locality, must be compromised by a money payment. In the reorganisation all rights whatever must first be liquified and then a realloiment of existing land should be made upon the basis most expedient for the community as a whole after the type of the new community to be created has been decided. The remaining rights would then be dealt with serially in such manner as to give the most benefit, or do the least harm to the persons concerned. It would be dangerous to attempt to regulate any such reorganisation by precedent, or to make it conform with the existing laws which have totally divergent aims, being mainly concerned with the maintenance of the *status quo*. Such a fundamental change can only be carried through successfully by reliance upon first principles, having constantly in view the welfare of the new community to be created and applying the broad principles of humanity to the cases of hardship which may be expected to present themselves.

PART II

OUTLINE OF PROPOSED CHANGES

The first part of this paper has been devoted to an exposition of the more important economic principles affecting the consolidation and enlargement of agricultural holdings and to defining and finding a solution in general terms of the problem of establishing permanently a higher standard of living. The practicability of attaining these objects has purposely been left unconsidered. It was intended only to obtain a clear view of the right goal to aim at ; because such a clear view is necessary before the practical measures to be taken for the purpose of changing the present evil can even be discussed fruitfully. Also in order to obtain a simple and clear view of the object to be aimed at I purposely avoided details ; and these may in some cases be filled in here.

Consolidation of all Owners' Holdings necessary

It is necessary to distinguish between the scattering of the strips of one *mahal*, or legally recognised unit of ownership, and the scattering of strips held by one cultivator, whether from one or more owners. For clearness of diction I use the term *unit of cultivation* to denote the whole of the fields actually cultivated by one man, or by a family or partners, as one business concern, whatever the

ownership of fields may be. The cultivator may hold some of his fields as a tenant with occupancy rights, and others as a tenant-at-will, and himself own yet other fields, thus making up a cultivating unit of, say, 10 or 12 acres. The scattering of strips in ownership* would not be a matter of vital concern were it not that it involves almost of necessity the scattering of the fields of a cultivating unit, because a tenant would experience very great difficulty in making the numerous agreements which would be needed to get a consolidated cultivating unit. I come, therefore, to the conclusion that the only practicable course is to adopt a policy of abolishing both scattered ownership and scattered tenants' holdings at the same time by consolidating the units of ownership.

In cases when the ownership is not at present scattered,—that is to say, where a whole village, or a large part of a village, is held as one *mahal* by a 16 anna shareholder, or in imperfect partition—it would seem to be feasible for the owner, or the two or more shareholders, to agree to rearrange the holdings for letting purposes. One obstacle to this is the novelty of the idea, and the consequent opposition which would be raised even by tenants-at-will as a united body; and a further obstacle is the absence usually of any expert agent to carry out for the landlord the re-division of his land into the fresh holdings. The land needs to be re-surveyed, and new holdings graded in size according to the quality of the land, distance from the *abadi*, etc. The principal difficulty, however, is the occurrence of occupancy holdings with their fields thoroughly intermixed with the fields of tenants-at-will. The occupancy tenants cannot, under the present tenancy law of

* Both *mahals*, and *pattis* thereof, are frequently composed of scattered fields in different parts of the village.

the Agra Provinces, be bought out ; and it is exceedingly difficult to arrange an exchange of fields which will be regarded by occupancy tenants as mutually satisfactory. Consequently nothing is done.

Advantages of Consolidation Admitted.

Yet scattered holdings are admitted to be a serious evil which is frustrating the progress of agriculture in several parts of India. I take it to be generally agreed by agricultural experts that it is desirable in most places to consolidate scattered holdings more or less completely, the idea being that a holding should be compact, except where the nature of the country is such that the safest and most economic business is to carry on a mixed farming requiring river meadow lands, and plains or uplands in due proportion.

The disadvantages of the present condition of holdings and the advantages of re-stripping have been so well stated by many authorities that I need do no more than indicate my agreement with their statements. In 1912, Mr. Moreland, then Director of Land Records and Agriculture in the United Provinces, prepared a note for the United Provinces Government* which was printed and circulated by this Government. His proposals will be considered later on in this paper. In the same year Mr. G. Keatinge dealt briefly with this question in the Deccan.† In 1915 Mr. Burt read a paper before the Science Congress at Lucknow on *The Re-alignment of*

* Dated 29th June, 1912, and enclosed under No. 19 1-505-1912 of 1915.

† *Rural Economy in the Bombay Deccan* (Longmans), pp. 40—2, 51—5.

Agricultural Holdings ; * and more recently a committee appointed by His Highness the Gaekwar of Baroda has fully investigated the question of the minute subdivision of holdings in that State.† Dr. Harold Mann has also called attention to the evils of excessive subdivision and cultivation of scattered fragments of land. He points out that cultivating a holding of small scattered fields has the great disadvantage of very small holdings in preventing the use of machinery and labour-saving appliances, whilst also " it has all the evils of large holdings, in that it prevents the adoption of really intensive cultivation by any holder."‡ In a subsequent publication he has amplified this study.§ The importance of the question is being widely recognised in the Bombay Presidency and it has received attention in the Bombay Legislative Council on more than one occasion during the past two years.||

*Scattered Strips characteristic of Primitive Society
in all countries.*

The cultivation of scattered strips is a well known and very widely distributed economic phenomenon which

* Reprinted in the *Agricultural Journal*, Special Indian Science Congress Number, 1916, p. 33.

† *Report on Consolidation of Small Scattered Holdings* ; issued by Baroda State Printing Works. *As.* 10.

‡ *Economics of a Deccan Village* ; *Indian Journal of Economics*, Vol. I, p. 420.

§ *Land and Labour in a Deccan Village* ; University of Bombay : Economic Series No. 1 (Oxford University Press), 1917—Chapter III : The Land and its Divisions and the Holdings.

|| *Proceedings of the Bombay Legislative Council* ; especially the 14th and 15th March, 1916.

seems to be characteristic of a certain stage of the evolution of primitive society in all races of mankind. The first three stages of the evolution of society are (1) families living by hunting and gathering wild fruits; (2) nomadic tribes living by pasturing domesticated animals, and gathering wild vegetable products; (3) "extensive" cultivation, as it is called by economists.* Nomadic tribes, having learnt to take occasional catch crops, gradually settled down and began to break up patches in the jungle. They had no rotation of crops, but broke up new patches in the waste as required.

The *abadi* is characteristic of the most primitive agricultural people. They settled in a definite spot for the village, and thus came a fourth stage. All the lands near the *abadi* became cultivated by the growing population of the village and the children of large families divided the home fields and had to make their cultivated area up to a size sufficient for maintenance by taking in fields from the waste. The fifth stage is the almost complete absorption of the cultivatable waste, except what is needed for grazing land; and the sixth stage the, subdivision of holdings through the growth of population until the minimum economic size is reached, corresponding with a slightly improved cultivation which is forced on the people for maintenance. Here a stage of economic equilibrium is reached in which population must be stationary and the death-rate equal to birth-rate on the average, though owing to variations of the seasons, it is largely by famines and epidemic diseases that the average death-rate keeps the population down.

* W. Cunningham, *Growth of English Industry and Commerce during the Early and Middle Ages*, 5th ed., p. 33. Cf. Bücher, *Industrial Evolution*, Trans. Wicket (Holt & Co., N.Y.), pp. 45 *et seq.*

This is the last stage characteristic of primitive civilisation, and society may remain in this condition for centuries. When advanced civilisation begins to demand progress of the agricultural community, two lines of advance are possible: (1) by education and co-operation, and particularly by instruction of the people in the methods of intensive agriculture, so as to increase the productivity of the small scattered holdings, as has been done in France, Japan, Denmark and Ireland. (2) The other line of advance is to promote improved efficiency in agriculture by a rearrangement and enlargement of holdings. The former method would appear to be very limited in its scope—in economic phraseology, the marginal productivity of additional effort devoted to improving the culture of small holdings declines rapidly. The only exceptions are in places where there is a particularly large demand for special crops; e.g., the environs of Paris, London, or Calcutta.

For the production of the staple crops the economies of large scale production on compact holdings are so great that small holders of scattered fields can hardly make a living in competition, where the market is ruled by a considerable volume of production on a large scale. They are handicapped not only in labour, but by the difficulty of employing capital in the form of machinery and permanent improvements. This is well understood in England. It is easy, therefore, to establish two propositions: (1) that the progress of national economy, that is the welfare of the country as a whole, demands the cultivation of all staple crops on large holdings with abundant capital, because of the great economies, and therefore increase of wealth, which would thus be realised; and (2) that if large holdings become numerous in some parts of India, *i.e.*,

Punjab, Central Provinces and parts of the United Provinces and Bengal, the system must rapidly (that is in 20 years or so) be extended throughout the whole of India, because the cultivation of staple crops on small holdings will become so unremunerative as to yield less profit than will support the existing standard of living.

Necessity for Government Intervention

It may be admitted that the economic welfare of India requires the introduction of the system of cultivation on large compact holdings, and yet be questioned whether there is need for Government intervention in the matter. It may be answered at once that it is highly probable that, were it not for the very great economic friction created by the primitive land tenure customs and laws, the change would have come about already. Unfortunately the effect of British legislation in India, which created occupancy tenures and permanent ryotwari and zemindari holdings, has been greatly to increase the difficulty of change; and it may be confidently asserted that the difficulty of rearranging and enlarging holdings is now so great that the expectation of a profit three times greater than that which may be fairly anticipated would not be a sufficiently powerful economic force to bring about the change. It is therefore, essential that the Government should intervene, and by means of special legislation facilitate the consolidation and enlargement of holdings.

The experience of other countries supplies ample precedent for the special intervention of Government to secure this end. In all countries the last stage of primitive tenure involves not only an intermixing of fields, but com-

mon rights in grazing on the pasture and waste, and sometimes, on the stubble. Such rights have everywhere proved too complex and stubborn to be liquidated by agreement over any large area of country, and special legislation has proved necessary. The pioneer country in this special legislation was England ; but many other countries have been obliged to undertake special legislation as noted above. As the change has been carried practically to completion in England it will be profitable to glance briefly at the methods which were adopted and the results obtained in that country.

The Enclosure Movement in England

In England the consolidation and enlargement of holdings was nearly always accompanied by the erection of a ring fence about the new holding, which was usually partly carved out of the common land. Hence the process variously called re-stripping, re-alignment, consolidation, redistribution, re-partition, or reorganisation, was in England termed enclosure. The type of cultivation which was practically universal in England during the Middle Ages is known as the "open field system." The lands of the manor (or village, as we should call it in India) were classified as follows: (1) the demesne close (or private compound and home fields of the lord of the manor); (2) arable fields; (3) meadow land, beside a stream or river; (4) common pasturage on which the villagers had limited grazing rights; (5) waste, with unlimited free grazing until later centuries when the growth of arable and pasture absorbed most of it; (6) forest, with well-defined

rights of the villagers for taking fuel and timber. The villagers, whether free-holders, villeins in servile tenure, or tenants-at-will of the former or of the lord of the manor, cultivated a large number of strips scattered throughout the arable fields, the number of separate strips being from 4 or 5 up to 50, but the most frequent number was probably about 20. The standard size of strip was the acre 220 yards (one furlong) in length and 22 yards wide; but half and quarter acre strips were not uncommon, besides irregular plots caused by the contour of the ground. The acre was supposed to be the area which one plough with four, six or even eight oxen, could plough in a day, and as no cultivator owned as many oxen as were supposed to be required for the plough, a co-operative system of assistance prevailed. Whilst the demesne (equivalent to *sir*) lay partly in enclosed home fields, the larger part of it was in scattered strips in the open fields. The arrangement of the strips in the arable fields is well shown in a map published by Mr. F. Secbohm in his book "The English Village Community."* The best description of the English field system prior to the enclosures is to be found in a recent book by Professor H. L. Gray of the Harvard University.† He reproduces a number of maps of old parishes showing clearly the arrangement of the strips in the arable fields and the manner in which enclosures usually began to be made around the village dwellings which were concentrated in one place along one

* See frontispiece and plate opposite page 26. The latter plate is also reproduced by Cunningham, *ibid.*, page 44. I have relied considerably on Cunningham's account of the mediæval system of agriculture and would refer readers particularly to pp. 73-8 and pp. 526-34. An elementary sketch of the manorial system is contained in Gibbin's *Industrial History of England* (Methuen), pp. 5-22.

† *English Field System* (Harvard University Press), 1915.

or two roads. Other sporadic enclosures of the meadow land were made for pasturage purposes, the initiative being usually taken by the lord of the manor enclosing part of the demesne.

The manner of cultivation differed in various parts of England and changed slightly in the course of centuries. The more primitive method was known as the two-field system, and it involved letting the land lie fallow every alternate year. The arable strips of the village were grouped in two open fields, perhaps 200 acres or more each. In one year all the cultivators were obliged to leave all the strips in one of the fields fallow because the cattle were turned out to graze on the fallow land, and so the whole of their cultivation was done in the strips of the other field. Next year the fields were changed. A gain of cultivating an additional one-sixth of the total area was made by adopting a three-course rotation which involved the arable lands of the village being laid out in three fields, and was termed the "three-field system." Each field was laid fallow in succession so that each of the three fields was put through the following rotation:—

- (1) Ploughed and sown with wheat in October, reaped the following August; grazing on stubble during autumn.
- (2) Ploughed in March and sown with barley, oats, beans or pulse; grazing on the stubble during the autumn.
- (3) Land ploughed twice, but lying fallow, and open to cattle.

The three-field system seems to have gradually superseded the two-field system except in certain districts where the latter remained until both the systems gave way before the modern method of convertible husbandry in which

periods of grass growing alternated with arable culture. It was the profit of sheep farming and cattle breeding which first led to the withdrawal of lands from the common cultivation and their enclosure with fences. This movement began in the east of England in the fifteenth century and resulted in a considerable depopulation of certain parts of the eastern counties. The incentive of sheep breeding did not extend over the rest of the country, and probably also there were greater legal difficulties in making enclosures in other parts of England, a larger percentage of land having been freehold originally in the eastern counties. Sporadic enclosures took place throughout the 16th century, but it was not until proper ideas of convertible husbandry and drainage were learnt from the Dutch in the 17th century that a widespread interest in the consolidation of holdings and their enclosure began to be evinced.

The best account of the enclosure movement is given by Professor Gonner in his book "*Common Land and Enclosure*" (Macmillan, 1912). He has traced from contemporary documents the whole course of the movement and has described the legal methods adopted at various times to carry out the enclosures. In the 17th century the enclosures were mainly carried out by agreements of the owners, which would mean the lord of the manor, the copyholders and one or two free-holders. It was usually considered necessary to render the agreement indefeasible by obtaining a decree of the Court of Chancery. A few extracts from Gonner's book will be of interest.

"During the seventeenth century agreements were even more important. The testimony as to their prevalence is strong, and spread throughout the period. They find mention in the record of the action of the Privy Council, between 1630 and 1640, which illustrate the

difficulties which beset those anxious to agree, and also the methods whereby a reluctant consent was often wrung from those who were unwilling. Again, in the controversy which raged a little later as to the effect of the inclosures in the Midlands, and particularly in Leicester, we are told of the lords of the manors and others anxious to inclose that if they cannot persuade, they commence a suit in law." *

The difficulty of this method was that "the decree would not affect rights which were claimed by others than the parties to the case..... It may be suggested that it was the recognition of this limitation which led to the disuse of this particular method. Its inability to procure anything like a binding or universal consent, together with the difficulty attending purely voluntary, and even registered agreements, led to the open and steady demand for powers to prevent obstruction which could be obtained only by application to Parliament." †

"This new stage on which enclosure enters under parliamentary authority admits of division into three periods. During the first, which extends through the eighteenth century to the general act of 1801, the growth of the private acts may be traced from the very rudimentary form of the earlier acts to that high degree of development where, by reason of the very uniformity and complexity of the provisions included on each occasion, a general act was rendered not only feasible and useful but essential. The second period is from 1801 to 1842-5, ‡ and includes the private acts which were passed in accordance with the provisions of the general act. After 1845 the powers hitherto

* *Ibid.*, pp. 53-4.

† *Ibid.*, pp. 55-6.

‡ That is, to the general act of 1845.

exercised directly by Parliament, and through commissioners specially appointed by act, were delegated to different permanent bodies established by act, and subject to Parliamentary control, inasmuch as their decisions or orders had to remain on the table of the Houses before becoming operative." *

The usual procedure in making enclosures by private act was, at the close of the 18th century, when the technique had fully developed, as follows. † Proceedings were commenced by a petition for an act, which involved considerable expense whether the act were ultimately obtained or not, and this placed the initiative in the power of wealthy owners only. A meeting of owners and others known to be interested had to be called and a preliminary agreement of all those who could be got to agree to submit their interests to commissioners sanctioned by Parliament was included in the petition. In most cases the commissioners, usually three in number, were named in the petition or draft bill. The commissioners were usually paid. Probably the best "were practical men with knowledge of farming and surveying, who gained experience from being employed in enclosure after enclosure." ‡ The powers of the commissioners were considerable and each was bound by oath to administer with justice. Their award was final, except as to the title to property. The local proceedings were arranged with a view to publicity, and usually opened with a public meeting to consider the draft petition. After such negotiations and meetings as proved necessary, signatures of the draft bill were

* *Ibid.*, pp. 59-60.

† This is abstracted from Gonner, *ibid.*, Book I, Chap. III.

‡ *Ibid.*, p. 75.

obtained and witnessed, showing the degree of dissent, if any; and the act was then usually passed by Parliament with little or no alteration, if in the usual form.

The commissioners being now appointed called a public meeting at the locality, at which they usually took the opportunity of obtaining public consent, or at least hearing objections, in regard to the surveyors and valuers they proposed to appoint. The survey and valuation, the latter parcel by parcel for every holding, were then made. Besides fertility of the soil, drainage, situation and cost of enclosing were always taken into account. The proposed allotment of new fields was then made, and a revaluation of the land on this basis. Upon the improvement of value thus ascertained was first assessed the cost of the inclosure; and then the rights of tithe, various rights of the lord of the manor, and of the forest ranger, etc., were compromised. The commissioners then proceeded to lay out the village anew apportioning land of amount corresponding in the proportion of new total value with the proportion of estimated value of the previous rights of each recipient. "The new enclosures were as a rule regular and compact.....They lay, in the case of some, at a considerable distance from the little village of farm houses, while others had the advantage of having their holdings conveniently near."* One of the most important duties imposed on the commissioners was the laying out of roads, which were to be planned before the land was distributed. The public roads were to be constructed at the common charge of the enclosure. Private roads for access to holdings were planned by the commissioners and the expense apportioned by agreement amongst those whose holdings they served. "There is no doubt that

* *Ibid.*, pp. 82-3.

the roadmaking performed under the enclosure acts co-operated with the increase in and improvement of roads under the Turnpike Acts* in effecting the great change in the means of locomotion which marks the end of the eighteenth century." Fencing or hedging of the holdings was required to be done, and this bore heavily on the owners of small allotments, so that they frequently had to sell their rights to large holders.

The expenses of enclosure were heavy and caused loud complaints by the smaller owners. The Board of Agriculture has calculated that the average area affected by the acts was 1,162 acres each; and that the average expenses were as follows:—

			£
In obtaining the act	...	...	497
Survey and valuation	...	...	259
Fees of commissioners and pay of clerks,			
etc.	...	...	344
Fences	...	...	550
			<hr/>
			1,650

This amounts to an average of £1 8s. 1d. (or Rs. 21-1) per acre; but apparently it does not include the assessed cost of roads. The appreciation of value was considerably more than this for the larger holdings; but hardly equal to the expense for the smallest of the new holdings.

The subsequent history of the new compact holdings

*"Turnpike Trusts originated in the desire to maintain and improve roads. In many cases, however, they are directed to the provision of new roads (see pp 1851, xlviii. County Report, Kent). While the first act was in the seventeenth century, such acts are scarce till Anne, and not really plentiful till towards the end of G. II., thenceforward they are very numerous. The trusts were usually for limited periods, but these were open to renewal. By the beginning of the eighteenth century, the length of road under Turnpike Trusts was about 17,000 miles (in 1818, 17,601, Parl. Papers xvi.; in 1821, 17,329, Parl. Papers, 1821, iv.), of course the majority of roads were not under such Trusts, other roads being given in 1818 at 86,116 miles."

is one of gradual consolidation and enlargement. Immediately the redistribution was effected and the land fenced many cottagers and small holders found themselves possessing a field of 5 to 10 acres, or two fields aggregating 15 or 20 acres. They failed to make them pay, got into debt and sold their holdings, usually to the lord of the manor, who threw such additional fields into his compact farms on which he was proceeding to build farm houses and buildings. For the first few years after enclosure all the cultivators, except the farmer of the old demesne, probably continued to live in the village and go daily to their new fields. But with the gradual formation of larger farms, involving a considerable household working at one centre, there was a movement to secure a residence on the holding itself, and as fast as landlords could find capital for building farm houses the exodus from the village high streets took place. It is important to notice that holdings of less than about 40 acres in area were generally located as near the village site as possible. With the formation of larger farms many of the objections to isolated residence disappeared because there was usually a larger family and several relatives and hired labourers living on the farmstead. These numbers gave increased security, and a sufficient degree of social intercourse, if supplemented by visits once or twice a week to the village or market town. During the first three-quarters of the nineteenth century the movement for increasing the size of farms seems to have continued in England, two or three small farms of fifty to one hundred acres being thrown together and let as one. One of the farm houses and appurtenant holdings would be greatly enlarged, and those of the other holdings be dismantled, or be let as residences with garden and paddock if anywhere near a town.

It is worth noting that a vast improvement in the intelligence and class of youths who remain to work on farms in England has occurred during the past 15 years by the cheapening of the bicycle whereby they can meet daily in the evening in the village. It is not difficult to imagine how, in rural India, social life would be raised to an altogether higher plane, were the holdings to be sufficiently enlarged and methods of cultivation improved so that the majority of villagers could afford to own bicycles, and if inter-village roads were all metalled so that they could use them. The Indian villager is fond enough of gadding about if he gets the opportunity; and it is difficult to overestimate the educational value of local as well as distant travel. Nothing would more rapidly diffuse an interest in and knowledge of improved methods of cultivation.

Mr. Moreland's Note

In his note referred to above Mr. Moreland first indicates the advantages which would accrue from a redistribution of holdings; and then rightly points out that the present waste of power becomes more serious as the cost of production increases. He regards it as desirable that experiments should be made in villages where conditions are favourable, and proceeds to outline a method of proceeding by arranging exchanges of fields. He then suggests that if it were "found possible to make the bulk of the holdings in a village fairly compact," the question of moving homesteads out would arise. "Where the holding is at a long distance from the village, the cultivator might decide after discussion to build a house on it." He next refers to the necessity of retaining the uneconomic holding (in due proportion) as a ladder by which the best and

thriftiest labourers can mount to the rank of cultivator. The next paragraph is important: if the result of experiments as above indicated should be negative, the question would then arise of passing an Enclosure Act giving landholders the power to override the opposition of a minority and reorganise their villages with a clear course open. Finally he deals with the question of increasing the size of holdings.

The criticism of this last section of the note relating to the size of holdings must depend entirely on the critic's premises. Moreland writes as if looking at the question from what I hope I may call the old-fashioned point of view. The question with him is whether external economic forces will force attention to the size of holdings as a serious social evil through the margin between price and cost of production becoming less than a subsistence minimum. He thinks there is no reason for immediate anxiety, and hails the co-operative movement, especially co-operative purchasing and marketing, as a means of at least staving off, if it cannot permanently prevent, such a calamity.

Objects of Proposed Changes

My own object in the proposals which I shall make in the remainder of this paper is a very different one from that which may be inferred from Mr. Moreland's note; and I would submit that it is of fundamental importance to have clearly in view the object of any proposed measures before judging them, and that it is always necessary to decide definitely upon the aim of any reform under consideration before proceeding to discuss what changes are needed and how they are to be carried into effect.

In the measures which I shall now tentatively outline I keep constantly in view as their object the deliberate and progressive increase of the welfare of the Indian people.

The economist is directly concerned with two ways of realising this end :—

(1) By the development of the economic resources of India with the utmost rapidity consistent with safety in assuring permanence of the results obtained.

(2) By the provision of the physical basis for progress to a higher standard of life—intellectual, religious, moral, and social—by indicating :—

(a) how to utilise for this purpose with the greatest efficiency the wealth produced by the development of resources ;

(b) how the material environment, as regards dwellings, towns, roads, water-supply, public works, and so forth, may be arranged so as to react with the greatest effect in the desired direction of intellectual, moral and social uplift.

There can be no question but that the right line of advance in developing the resources of India is to utilise the machinery of Government in order so to rearrange the land tenure system as to enable the existing body of skill and knowledge of the agricultural art possessed by the cultivators through tradition and by numerous trained experts, and the existing supply of capital in both private and State control, to be employed with the

maximum of efficiency in the production of wealth. At the same time in devising measures to this end care should be taken that there is not a serious loss of character and other beneficial qualities of the agricultural population by the social revolution that must be caused, but rather that the measures taken for the production of wealth tend at the same time to the upbuilding of the more perfect man. As a step in this direction I proceed now to define the type of rural community which appears to me to be a realisable ideal for the near future, and a very distinct advance along the road which I have indicated.

I would like to say at the outset that my views on this question were only formed after a visit last year to the Lower Chenab and Lower Bari Doab Canal colonies. I very much doubt whether any one who is not familiar with the wonderful canal colonies of the Punjab will have the faith that has been born in me as to the possibility of the rural regeneration of the rest of British India. In the remainder of this paper I shall refer only to temporarily settled tracts where the zemindari system of landlord and tenant prevails, as in the Provinces of Agra and Oudh, the Central Provinces and parts of the Punjab. Much that I say will also be applicable to the permanently settled territories of the United Provinces, Bihar, and Bengal.

Types of New Villages

In the first place it is necessary to get a clear idea of the kind of village we wish to facilitate the growth of. In the neighbourhood of Allahabad the size of the administrative villages varies very considerably, from 200 acres or so up to about 3,000 acres. The largest villages

are disliked owing to the excessive complication of the accounts, and the need of employing two or three patwaris. On the other hand the small villages cannot support a single patwari, and one man acts for two, three or even four villages. Some administrative villages are without any inhabited site at all, the owners having migrated and the land being let or sold to inhabitants of surrounding villages who walk thence to cultivate their fields. For revenue and other administrative purposes, as well as for our purpose of consolidating holdings, it will be desirable to adopt a policy of freedom in altering, and particularly in enlarging, village boundaries, so as to produce compact villages varying from 2,000 acres up to 3,500 acres.

As such villages will often embrace four or five existing villages there will be four or five *abadis*, as may be found in some villages now. In the Punjab where rainfall is slight the choice of an *abadi* lies between several squares in an administrative *chak*; but where the monsoon rainfall (June to September) exceeds 20 inches, dwelling sites must be chosen with care; and there are not many to be found which will be dry in a wet monsoon and yet be conveniently located for water-supply and other purposes. The question of dwelling sites is much too complicated to be settled by external authority, and I think it was a pity that Mr. Moreland in this *Note* raised the question of villagers migrating to live on their holdings, as the replies of a large proportion of the zemindars to whom the *Note* was circulated are in opposition to the consolidation of holdings on the ground that the cultivators will refuse to leave their *abadis* and go to live on their holdings. The two questions are really entirely distinct, and should be kept so. The experience of thousands of square miles of the canal colonies shows that it is

perfectly possible to have compact holdings lying at varying distances from the *abadi* in which all villagers live. A large *abadi* there becomes almost a little town, with properly planned streets and several shops, a school, and open market square.

If the cultivators ultimately find that the agricultural advantage of living on their holdings outweighs its social and other disadvantages, they will move out of their own accord, provided legal facility is given for them to obtain consent to build and also compensation for such improvements if ejected. If this protection be granted the question may be left, I think, to settle itself. Facilities should also be arranged where desired for gradually rebuilding existing *abadis* on their present sites, so as to provide more space, wide roads, and better sanitary conditions in every way.

The arrangement of the fields when a new allotment is made should have reference not only to the requirements of agriculture, but also to the convenience of the revenue and land record officials, and also of the irrigation department in districts watered by canals. In my opinion no account should be taken of the existing field boundaries. A clean sweep should be made and redistribution carried out on the simplest possible plan. There is no doubt that the rectangular field system, adopted in the Punjab colonies has here, as in America, very great advantages. Whether the fields be actually made squares or rectangles all field measurements are greatly simplified, and water is saved in irrigation. A further advantage is that boundary stones cannot be shifted without detection, since the observer should always see in each direction long lines of posts at equal distances in a straight line. It does not seem to me necessary to insist on the new compact holdings being fenced in, but owners or occupiers should

be at liberty to put up boundary fences, of which not less than half the thickness must be on their own land.* Fencing with mud or kachcha brick walls, or wire, should be encouraged, and hedges discouraged, except perhaps for enclosing pasture.

As regards the latter, the allotment would always provide grazing ground close to the *abadi*, and usually this would be split up into fields of about two or three acres in size so that each cultivator could have a paddock for his cattle. An alternative plan would be to have the grazing land immediately around the village split up into two or three large enclosed fields of from 20 up to 40 acres each, in each of which certain villagers would have specified grazing rights. Each house would also have a small yard of one-sixth or even only one-eighth of an acre immediately beside the house. Any stretch of waste land lying at a distance from the *abadi* could also be reserved as a pasture ground and be enclosed with a ring fence so that cattle could be left there safely enough during daylight without children posted to watch, and in some places perhaps at night. It must be remembered that one result of the rural reorganisation should be to bring a school to every village, where a curriculum having a definite relation to the principal occupation would be taught; consequently the cheap labour of children would not be available for watching cattle, and they must be prevented by fences from straying into the corn-fields.

Enlargement of Holdings

In the first part of this paper I have already indicated my reasons for wishing to see a considerable increase in

* The projection over the neighbour's land should be limited to 12 inches.

the average size of holdings cultivated in order that a higher standard of living may be introduced and have the opportunity of perpetuating itself. The actual size of holdings should vary considerably. It is always a false ideal to aim at uniformity where the natural conditions of utilisation and of social evolution demand variety. In the first place, the size of holdings must vary according to the character and fertility of the soil and the nature of the farming for which the climate and distance from market render it suitable. In the second place, different cultivators differ very much as regards the area for which they have sufficient capital or sufficient managing ability. I have come across cases within no great distance from Allahabad where men are said to be farming as much as 200 to 300 acres, some of which they own, but most of which is rented in a multitude of small fields.* Such men must have considerable managing ability; and if they could get compact areas of 300 acres or so, they would probably be ready to learn improved methods and introduce labour-saving machinery.

It would appear that in the central parts of the Ganges plain, outside the canal irrigated area, the mode about which the holdings of cultivators wholly or mainly dependent on agriculture for their livelihood vary in size is about 8 or 9 acres.†

It is not easy to get actual statistics of areas cultivated owing to the fragmentation of the fields, and to the fact that the renting of fields in an adjoining village as a sub-tenant is a not uncommon practice. It is impossible

* This is hearsay evidence gathered in the villages and requires confirmation by detailed inquiries. The largest figure mentioned was 600 bighas, and possibly much of it is worked on the share system.

† The *mode* is defined by statisticians as the most frequently occurring number or size in any series, or "the number of which most instances can be found"—(Bowley, *Elements of Statistics*, p. 123).

to trace such cross-lettings except by a close analysis of the patwari's registers (khatauni-jamabandi) of a large group of conterminous villages, or by personal enquiries on the spot. A classification of the holdings of one village considered to be very probably typical of the dry area of the Lower Doab is given in the following table :—

Sizes of groups		Number in each group.	Number in half-acre groups
1 acre and under*	...	48	26 22
2 acres and over 1	...	41	28 13
3 " " " 2	...	21	14 7
4 " " " 3	...	17	7 10
5 " " " 4	...	11	6 5
6 " " " 5	...	9	
7 " " " 6	...	2	
8 " " " 7	...	8	
9 " " " 8	...	4	
10 " " " 9	...	1	
11 " " " 10	...	3	
12 " " " 11	...	1	
13 " " " 12	...	3	
14 " " " 13	...	1	
15 " " " 14	...	0	
16 " " " 15	...	0	
17 " " " 16	...	1	
Over 17 acres:—			
38·4 acres	...	1	
49·5 "	...	1	

* The original figures are given in bighas, biswas (20 = 1 bigha) and biswansis (20 = 1 biswa) and have been converted at the rate of 32 biswas = 1 acre.

These figures are plotted in the following graph, which shows that the mode is approximately one acre :—

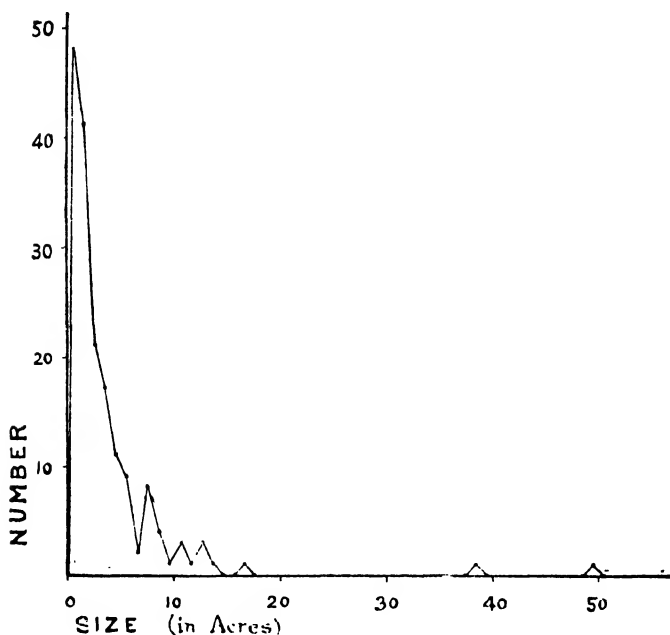


FIGURE 1. ASADULLAH-PUR KOHI VILLAGE

The ordinates (distances measured vertically from the base-line) represent the number of cultivation holdings (farms) in each one-acre group; and the abscissae represent the sizes of the area groups in acres. The groups are defined as in the above table.

Taking all matters into consideration, it appears to me that a proper arrangement of the size of holdings, in accordance with the principles which have been outlined in the earlier part of this paper, would produce a graph of

the shape shown by the continuous line in figure 2 below. The size distribution which seems now to prevail is indicated by the broken line.

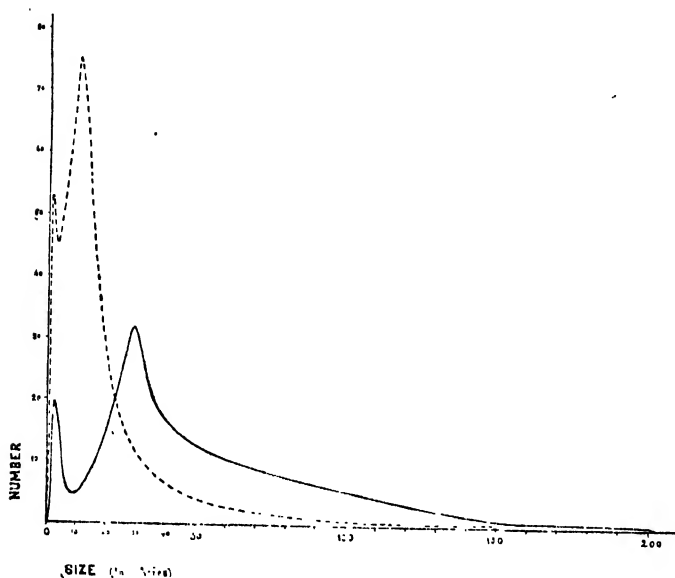


FIGURE 2. HYPOTHETICAL EXAMPLE

The broken line is intended to illustrate the present size distribution of the existing cultivation holdings in a tahsil or district; and the continuous line represents the size distribution which is here advocated as desirable when reorganisation of holdings is undertaken.

In both of the curves we see two peaks, corresponding to two distinct modes. Examining the curve representing the proposed rearrangement and enlargement of holdings we find that the first and lower mode occurs at a size of between two and three acres, whilst the other, or greater mode, occurs at about 29 or 30 acres. This curve would

be interpreted to mean that there are in the group of villages represented farms of all sizes from two acres up to 200 acres, but that there is a considerable number of small holdings cultivated of about $2\frac{1}{2}$ and 3 acres in size, several of four acres, and a few of six, seven, eight or nine acres. There are rather more of 10 acres, and a few more of 11 or 12 acres; and for each successive size a greater number is to be found up to the size of 29 acres, after which the number of farms in each acre group declines pretty rapidly at first and then slowly, meaning that there are a dozen farms or so of each size up to 50 or 60 acres and a few much larger farms up to 200 acres. I am here using the word 'farm' in the sense of cultivating unit. The very small ones of two up to five acres in size would be small holdings cultivated by artisans and labourers having some other occupation as their principal means of livelihood. Farms above 40 acres would mainly be cultivated by persons of special intelligence and aptitude or of considerable capacity, in many cases trained, we may hope, by one of the agricultural colleges.

The advantage of having such variety in the size of holdings is that in the first place it gives scope to enterprising cultivators who may be able without going to another district to move from a small to a considerably larger farm. In the second place it tends to introduce variety in the methods of cultivation in any district. Consequently such of the larger farmers as are progressive and have sufficient capital will be a good example to those who for the time have only small holdings. Another important point is to introduce flexibility in the size of holdings so that cultivators may easily add to the area which they are farming when neighbouring land falls vacant. The rectangular field system as laid out in the

Lower Bari Doab Colony would seem to lend itself excellently to this, as the squares are subdivided each into 25 fields of exactly one acre, which are numbered uniformly throughout the whole colony according to an officially established system.

Removal of Surplus Population

The average size of holdings which I have indicated as desirable to be adopted as the mode is rather more than three times the mode of the existing cultivating unit. If the sole change were in the increase of the size of the holdings, it would simply mean that after the redistribution the land was to be rented to those of the previous cultivators who could best manage larger areas, and that the others would continue to reside in the villages, working on the farms as labourers. It is an express object of the proposed policy of increasing the size of holdings thereby to create an opportunity for the introduction of better methods of cultivation ; consequently so far as capital becomes available for employing labour-saving machinery there must be a displacement of hired agricultural labour. By the opening of better communication with railway stations, which should be an integral part of the scheme, there will not only be a rise in the values of farms and of the articles produced at the farms, but also increased competition of factory-made goods brought from outside to the villages, which would tend still further to kill the local home industries and crafts of the village artisans. Consequently there would be little opening for the displaced labourers in the village industries. The fact has to be faced that the introduction of labor-saving implements and machinery—even putting an efficient steel plough drawn by strong

bullocks in place of the present country plough—must tend to reduce the population of the agricultural districts in India as it has done in other countries. Two very difficult questions arise: (1) how a selection is to be made of those cultivators who are to be lucky enough to get the new enlarged holdings, and (2) what is to be done with the surplus able-bodied men who would not be required as labourers, and cannot be allowed to remain destitute in the villages?

The tentative solutions of these problems which I would offer for consideration are as follows. The rentals of the new holdings must necessarily be fixed at a higher rate per acre to cover the cost of reorganisation and to cover the interest on capital which, it is hoped, landlords may be induced to spend upon them, or Government to advance; and as most of the holdings would be more than three times the size of the present ones, many of the existing cultivators would be unable to face their high rentals and there would not be excessive competition for the holdings. It might, indeed, in some places be necessary to subdivide some of the larger newly made holdings in order to get tenants who could prove themselves actually able to pay the rent. By such a process of economic selection, *working from a large average size of holding down to such smaller average size as proved itself to be stable*, the best farmers, from the cultivating and business point of view combined, would be automatically selected. The solution of the second problem of moving the surplus of competent adult labour would, I think, be a double one. Some would be offered the opportunity of taking up waste land in distant parts of India where population is badly needed. Others would be assisted to migrate to the towns where industries are

growing; and they would be given every inducement to settle down there so as to form a permanent industrial population.

The enquiries that I have made show that there are waste lands, not only in the Punjab, but also very extensively in the Native States of Rajputana and Central India, such, for example, as Bikanir, Alwar, Patiala, Gwalior, Bhopal, Indore, and Rewa. In many cases irrigation is needed to make these lands available, but if there were prospects of obtaining the population, most of the Native States would be ready enough to carry out the necessary works. I think two million acres could by suitable arrangements be colonised in the Native States. The Punjab will probably fill up its own waste land. The United Provinces with their 47 million inhabitants might well contribute two or three millions for the colonisation of the Rajputana and Central India States and for emigration to the Central Provinces where, I am informed, there are still many tracts of waste land on which the Central Provinces Government would be only too glad to locate settlers.* The main difficulty is the difference in type of country, the soil, rainfall and crops being different. It is for this reason that such migrations of cultivators need to be carefully organised. I may suggest that they might be managed and assisted by the Agricultural Departments of the different provinces and states working in co-operation, particular care being taken to see that newly settled colonists are located in villages (ryotwari or zemindari) at the head of which is placed a man of good character, knowing thoroughly from many years' experience the local

* Such districts are Chanda, Balaghat, Chhattisgarh, Raipur and Durg and to a smaller extent Saugor. For this information I am indebted to The Hon'ble Mr. J. T. Marten, M.A., I.C.S.

conditions of agriculture and capable of giving instruction therein, which should be made as much one of his official duties as the collection of revenue.

In a similar manner the emigration to growing industrial cities ought to be managed by Government in such a manner as to secure that the newcomer at least begins his industrial career under the most propitious circumstances. It is not too early even now to establish in Cawnpore and all the larger towns Government Labour Bureaus similar to those which have proved so successful in recent years in England. In regard to the immigrants from rural districts the labour bureaus should have a more comprehensive duty than merely finding employment, and should be responsible for securing decent and proper conditions of work, a fair remuneration, and sanitary and comfortable housing accommodation. It is greatly in the public interest for the promotion both of industries and agriculture that these matters pertaining to the welfare of labour in great cities should from the first be controlled in an enlightened manner. There could be no excuse for allowing the repetition in India of the scandalous social conditions which arose in the rapidly growing towns of Great Britain at the time when the agricultural revolution was squeezing the labour into the cities to be rapidly absorbed by the industrial revolution.

Replanning of Roads

A very important part of the reorganisation of villages must be the complete replanning of all roads in the village and its neighbourhood. Only those roads which are already drained and metalled as first class roads would be retained in their present alignment. All other roads would be abolished and turned into ploughed fields.

so that the replanning of rural roads might commence with a clean sheet. The justification for this drastic measure lies in the fact that 95 per cent of the existing roads were in existence before the railways were constructed, so that the great majority of them have no advantageous relation to the location of the railway stations. It is true that the engineers who planned the railways have often placed stations at points where important main roads, metalled or unmetalled, cross the railway; but the majority of country stations have no main roads approaching them, and none near them, except the trunk road which usually runs parallel with the railway.

The ideal arrangement of roads would be a net-work of minor roads converging into more important roads which would themselves converge directly upon the nearest railway stations. In order to get a clear idea of the road system, we must recognise the classes of roads required, which I shall take from the smallest upwards. We have first those giving access from the village site to the various farms. These I shall term the "field" roads. As in the Punjab colonies, they would usually run along the edges of the squares and would be made from 10 to 15 feet wide, according to the number of squares to which they would give access. The metalling of these roads, if any, would be carried out mainly at the expense of the owners of the holdings served. The next class may be called "inter-village" roads. These would form a net-work of roads going from every village direct to every other adjoining village. The third class of roads we might call "station" roads for they would run direct from the villages lying at any distance up to six miles from the railway station by the shortest route to the station, there being, however, no two roads made at an angle of less than 30° with

one another. The fourth class of roads would be "trunk" roads, provided for fast motor traffic, and in order to give alternative routes for produce to reach the market towns in case of break downs on the railway, or of freight rates proving exorbitant for short journeys.

Procedure for Consolidation of Holdings

The principles which should guide the choice of a method of carrying out the reorganisation of villages on the lines above described are the following. In the first place compulsion should be avoided as far as possible and the principle adopted that no change should be imposed upon any area unless the owners of more than one-half of that area desire the change. Should this condition be satisfied for an area which might be one village, or might embrace for special reasons two or more contiguous villages, it would seem expedient that legal power should be taken to compel the minority to accept the redistribution of holdings under the supervision of Government. In the second place whatever machinery might be established to carry out the redistribution, it must work in such a manner that the expense of the whole operation should be kept as low as possible and should not in most cases exceed Rs. 15 per acre, excluding the cost of fencing the roads. In the third place, considerable elasticity should be permitted in the methods of carrying through the reorganisation in different places during the first few years, as the whole undertaking would be in an experimental stage so that different methods might be tried, and the best be ultimately selected for a permanent set of

regulations. Fourthly, the possible necessity for a considerable change of the existing tenancy law in the reorganised villages must be faced. The present system actually discourages any improvements being made by landlords ; and much of the benefit of the change would be lost if some alteration of the tenancy laws were not made concurrently with the reorganisation of holdings. I see no difficulty in making a special tenancy law different from the general tenancy law applicable to reorganised villages in which the reorganisation has been controlled or approved by Government. For the sake of completeness I may add as a fifth principle the obvious condition that the redistribution of land must be made upon the most equitable basis possible, and that liberal compensation should be given to those, if any, who may be excluded from a former cultivating ownership.

The first step to be taken by Government would obviously be an act enabling it to appoint certain officers with powers of receiving, taking into consideration and acting upon applications for the consolidation holdings in any village or villages. Such a law would appoint a body of commissioners, perhaps five in number, whose duty it would be to receive petitions for consolidation. These commissioners would be jointly responsible for the carrying out of every reorganisation, but they would be given the power of appointing one commissioner from among themselves to have special charge of each particular reorganisation. Such commissioner would always be an experienced settlement or revenue officer. In carrying out his duties he would be assisted by two assessors who should be persons of standing with local knowledge of the district and who should be appointed by the commissioners from a number of suitable persons

nominated by the owners and other persons interested in the proposed reorganisation.

Prominent public notice having been given in the locality affected, and generally elsewhere by advertisement in the newspapers that the proposed redistribution of holdings would be taken into consideration, the commissioner would hold a public meeting in the locality and explain with the help of his assessors the precise objects of the consolidation, the benefit to be expected, the classes of persons whose interests would be affected and what steps they should take to secure the benefits of the scheme and to protect themselves so far as might be necessary. Notice would then be given to all persons interested to state their claims and objections in writing, for which purpose a legal adviser might perhaps be placed at their disposal at a nominal charge.

As soon as it was made clear that a majority of the ownership of the area, whether reckoned by shares or by area of holdings, was in favour of a redistribution, the commissioners would apply to Government for sanction to proceed. For this purpose they would prepare a report which would be published in the *Gazette*, and Government would appoint a period of three months to hear objections. If these objections did not appear to warrant the suspension of the application, or abrogation of the proposed proceedings, Government would order the commissioners to proceed after a further period of two months. At this stage it would be open for any objector to appeal to the High Court to stay the proceedings; but this would probably involve considerable expense, and the money would be lost unless the objector could make out a very good case. The necessary period having elapsed, and the High Court having issued no order to stay the proceedings,

the commissioners would once more hold a public meeting in the locality and explain fully the steps by which they would proceed to effect the redistribution of holdings. They would next appoint competent surveyors and a trained valuer. They would enter into communication with the Public Works Department or the District Board as to the replanning and the estimating for the roads. With the complete survey before them such questions as joint irrigation and drainage would be investigated ; and the question of any demand existing for a new dwelling site could be raised. With all this information in their possession the commissioners would then proceed to decide what areas should be reserved for grazing and for general purposes ; and the remaining area suitable for cultivation would then be divided up for a trial allotment and a valuation of it on this basis made. At this stage objections might be heard ; but they would be largely disregarded if they conflicted with the larger interests and general purpose of the proceedings. Finally a revised allotment might be made and a final valuation, on the basis of which the various owners would be assessed with the cost of the consolidation. The value of land required for roads other than field roads would be pooled, and deducted *pro rata* from the value of all the new allotments ; but the land required to be given up for field roads to other peoples' holdings would be taken into account in deciding the individual allotments.

Methods of Enlarging Units of Cultivation

The importance of the consolidation of holdings being accompanied by an enlargement of the average size

of the unit of cultivation has already been emphasised ; and it remains to consider what action the commissioners should be required to take to secure this result. It is obvious that it would not be possible to do very much to compel owners to let their land in large rather than small holdings and the control of sublettings would be difficult. The methods likely to be successful would be on the one hand to attract likely tenants away from the village and the surrounding neighbourhood, and on the other hand to place obstacles in the way of letting small areas.

The first would be accomplished by advertising as thoroughly as possible facilities for emigration to the towns and to districts under colonisation in the manner above suggested (see p. 40), and by establishing agencies in the locality and for such distance around as seemed necessary in order to lessen the supply of would-be tenants from the surrounding country. To place obstacles in the way of letting small areas, the commissioner might be required, after allotting new holdings to the owners, to proceed to define accurately the convenient farms or letting areas, having powers to insist that all the first lettings after the redistribution should be made only in accordance with these areas, and without subdivision. If difficulty were experienced in letting, variation should be allowed only with the consent of the commissioner. The commissioners would fix a number of areas of from 2 to 6 acres each for letting as small holdings, and areas from 16 acres upwards for letting as farms. Power of compulsory sale of land belonging to any obstructive owner, at the new valuation rate less 10 per cent, must be given to the commissioners in case the owner were to refuse to allow his holding of, say, 10 or 12 acres to be grouped with another owner's land for letting purposes. A sufficient degree of

permanence could be given to the farm areas defined by the commissioners by making it impossible for owners to recover rent by process of law for fractional parts of the officially sanctioned letting areas, unless such fractional parts were added to an adjoining whole farm and held by the same tenant. Thus farms could be amalgamated, or one be divided and its parts added to adjoining farms, but letting subdivisions of single farms would be very risky.

The adjustment of occupancy rights might prove troublesome when the new area to be let to the occupancy tenant exceeded the old area which he held with occupancy right. The commissioner might be empowered in such cases to decree a compromise whereby the area covered by occupancy right would be extended in consideration of the rent over the whole being raised to an equitable extent.

Cost of the Reorganisation

It is difficult to form any estimate, but it seems probable that the cost of reorganisation of areas of not less than 1,000 acres at a time would work out at between Rs. 10 and Rs. 20 per acre, excluding fencing and other physical improvements. The larger the area done in one place, the lower would be the average cost, because the commissioner and other officers instead of paying occasional visits would reside for months together on the spot. For this reason I would advocate a procedure of placing a whole district at a time under reorganisation when a sufficient number of applications had been received from it. In any district thus declared to be under reorganisation the first step would be the preparation of a general plan of trunk, station, and inter-village roads for the whole

district. A reorganisation commissioner would be assigned to the district for his whole time, just as a settlement officer is, and he would be assisted by different assessors in each pargana or tahsil. In any district declared to be under reorganisation Government might agree to do the whole business at a flat rate of Rs.10 per acre, whilst in isolated areas reorganised elsewhere the charge would be from Rs.12 to Rs. 20 per acre.

In my opinion there can hardly be any question but that the consolidation of holdings would prove a very profitable operation for land-owners. The market value of their lands would probably be increased by about 50 per cent within the first five years and still more after another five years when skill and capital for cultivating the larger holdings would have developed and rents could be substantially raised. It would be wise for Government to undertake not to raise the land revenue *on account of the profits of the consolidation* until the period of one settlement should have elapsed ; that is to say, assuming the cost to be borne by the owners. It would probably be a more popular policy, and incidentally profitable to Government, if the latter undertook to bear the whole costs of the reorganisation and recouped itself by a special cess or addition to the land revenue calculated at, say, 7 or 8 per cent per annum on the capital cost of the reorganisation.

The Necessity for Experiments

In conclusion I wish again to emphasise the necessity for undertaking experiments in the consolidation of holdings under favourable circumstances in all the different tracts of the country. In the United Provinces, for

example, ten different areas, each consisting of one, two or three villages, might be selected, preferably in easily accessible localities. If Government were to offer to bear the entire cost of the consolidation of the first 20,000 acres to be undertaken, without enhancement of land revenue, I am sure that there would be no lack of offers of their estates by owners. It would be necessary to make it clear that all tenancy difficulties would be smoothed over by giving the commissioners special and final powers for the purpose in these selected areas. In discussing the matter with enlightened zemindars whom I have happened to meet, the suggestion has been received with more favor than I expected, and the only serious objection raised has been the expected opposition of tenants, and the impossibility of forcibly removing the occupancy tenant from his fields even by buying him out.

In my opinion there is no reason whatever to wait and study the question further before commencing experiments. Study can best be carried on whilst actual operations are proceeding in the selected areas. The nature and extent of the difficulties cannot be discovered by any amount of arm-chair thinking beforehand. They must be discovered by experience; and similarly it is the men actually engaged in effecting the reorganisation who are the most likely to be able to find solutions for the difficulties they encounter. Resourceful and trustworthy men must be selected and they must of necessity be given very wide powers and discretion. Handled thus in a spirit of wise liberality it is difficult to conceive that the great economic change to be thus inaugurated can be anything but beneficial in the highest degree to India and the masses of her people.

APPENDIX

Since the foregoing paper was put into print I have had the advantage of discussing it with Professor Patrick Geddes, and in the light of his friendly criticisms and of the discussion at Poona there are a few words which it seems to me desirable to add. Professor Geddes observes, with reference to the standard of living (page 2) that it is raised by three, not two, agencies: that is, (i) by example, that is desire to imitate or emulate persons who possess the means and do actually live at a higher standard. Such example is stimulated (2) by travel and its educative effect. The remaining agency is (3) by relevant selection from the resources offered by the present educational system (though this as a whole is too urban in character and thus *townward* in its attractive and suggestive influences). It is probable also, he suggests, that the prevailing low standard of living in India was largely brought about by the necessity for concealment of property and the general depressive effect of the eighteenth century wars, a result which has been to a great extent standardised by the nineteenth century land tenancy legislation.

Another note by Professor Geddes refers to page 33 where I advocated that no account should be taken of existing field boundaries. He would have it that some account of them should be taken, not only when field boundaries follow the natural contours of the ground (which, of course, I intended should be followed), but also so as to avoid breaking home attachments by centring the new holding as far as possible on the family fields and trees, etc., which are most esteemed. If kept in view purely as a subsidiary aim, I agree with this also.

Another point is the shape of fields which, as Professor Geddes points out, should be long rectangles for efficiency of

ploughing, and not closely approximating to squares. The holdings also, he says, should be long rectangles, as nearly as possible radiating from the village site. Again, as occupation for the surplus population Professor Geddes would advocate the further development of forestry, fruit growing and silk culture; whilst a very considerable number of persons would be employed in the ever growing programs of public works.

One of the speakers at the Conference thought that a weak point in my scheme was that the re-organisation would produce a complete break with the past traditions of the village. This, however, would not be the case, as I do not propose to break up the village itself, that is the *abadi*, nor its immediate surroundings of wells, tanks, temple and sacred trees. The social centre of village life would remain unaffected by the redistribution of fields, and changes in the village buildings would only come about later by a gradual process of growth and reconstruction.

I may add that in the section on the enclosure movement in England reference should have been made to the work of Dr. Gilbert Slater, University Professor of Economics at Madras, on *The English Peasantry and the Enclosure of Common Fields*, which gives a clear statement of the methods and results of the enclosures. This book was not available to me when writing, or it would have been mentioned in the paper itself.

EXPLANATION OF VILLAGE MAP

The lines across the bottom of the map represent the main line of the East Indian Railway ; and a road crosses near the centre. There is one principal *abadi*, and there are three subordinate dwelling sites. These are shown by very heavy black lines forming a kind of cellular structure ; and streets are shown in two of them. The irregular ovals represent water-tanks, *jhils*, or ponds. For the sake of illustrating the scattered nature of the holdings, the fields actually cultivated by five individual cultivators during the crop year 1913-14 have been hatched or stippled with a distinguishing design as shown in the left-hand lower corner. These five cultivators were chosen at random. It will be seen that, whilst one cultivator tilled fields scattered in twelve different places, another (the one with the top design in the key) had only two contiguous fields, situated in the extreme north of the village. It is possible this last mentioned cultivator owns or rents lands in a neighbouring village.

**THE ECONOMICS
OF
TENANCY LAW
AND
ESTATE MANAGEMENT**

**BEING A COURSE OF PUBLIC LECTURES DELIVERED
IN THE UNIVERSITY OF ALLAHABAD
FEBRUARY TO APRIL, 1921**

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^oA regrettable mistake has occurred in the numbering of the Lectures so that there is no II. On page 34 *for* IV *read* V.

PREFACE

This Bulletin contains the substance of a course of public lectures delivered in the University of Allahabad during February, March and April of the present year. It will be obvious that some of the lectures are not printed in full, but are more or less summarised. A few parts, more especially a review of the history of the land legislation in the United Provinces, which is accessible in other books, have been omitted altogether; and there has also been some rearrangement of the order in which the subject-matter is presented. Otherwise the contents of this volume represent the lectures as delivered.

It might perhaps have been advantageous if some review of land systems in other foreign countries besides England had been included in the lectures; but I felt that this would unduly enlarge what was already an extensive subject. I have attempted to remedy this defect in some degree by including in an Appendix to this volume a list of books which give some description of the tenancy systems of other countries, together with occasional extracts therefrom and some comments.

After reading through the lectures again in proof, the conviction grows on me that the agrarian problem in India is of deeper significance and greater importance than was indicated anywhere in my lectures. I seem to see it now as the great political question which will emerge as soon as the constitutional strife is laid to rest. It is essentially an economic problem: and one that will affect the very roots of the future prosperity of India. I think the general tendency of unenlightened public opinion will be to favor peasant proprietorship in its broad sense, including tenants with fixity of tenure as well as those holding proprietary rights. The controversy as to the respective merits of large and small holdings as a system of agriculture, will rage here

as in other countries. An outcry will be raised against depopulation when large farms are created. The greater the pressure of the population upon the land the greater will tend to be the restrictions imposed by law upon the freedom of landlords. In favor of the policy of peasant proprietorship will be urged its apparent success in France and Belgium, and the modern movement for the re-creation of small holdings in England.

I feel it necessary to point out here that such arguments will be wholly fallacious, because they do not take into account the very different economic conditions prevailing in Europe. The British Isles and all the Western countries of the continent of Europe—Germany, Holland, Belgium, France, Spain and Portugal—are essentially countries with a maritime sea-board; and their economic development during the past fifty years has been largely conditioned by the growing cheapness of ocean transport. The cultivation of the small holdings in France, Belgium and Germany could never supply the food required by the present population. These countries, as well as England, normally draw a large part of their food-supply from the most distant parts of the world. Wheat comes from Russia, Canada, the United States, the Argentine and Australia; meat from North and South America, Australia and New Zealand; eggs and dairy products from Russia, Australia and Canada. The main fact, however, is the large importation of wheat; the cultivation of which is uneconomical on small holdings in Europe. The peasants of these countries are devoting themselves more and more every year to specialized products—potatoes, vegetables, fruits, herbs, sugar-beet, tobacco, and a host of minor products, a demand for which has been created by the growing populations of the cities.

How different is the situation in India! In normal years we export wheat and rice. It is almost inconceivable that India should ever become a country importing food-stuffs; for by the time our industrial development shall

have proceeded far enough to reverse our position in the world's markets, countries which now export wheat will have little, if any, surplus after feeding their own populations. Whatever surplus there may be will be bought by Europe and the United States, not India. Hence we must look forward to relying for all time on our own production of foodstuffs. In a land so fertile as India a system of agriculture developed to the extent prevailing in Western Europe could easily support a population of five hundred millions at a far higher standard of living than now prevails; but agriculture will never develop to that standard of living if the whole country is peopled with peasant proprietors on small holdings. They *must* go on producing foodstuffs by uneconomical methods, to the exclusion of the more profitable produce.

In some parts of India, therefore, *large scale farming must be developed*. In other parts too every stimulus will be needed to raise the productiveness of agriculture. My opinion is that success will only come by accepting the circumstances as we find them. Where a landlord class exists the most rapid means of progress will be the education of that landlord class to exercise its true function in the direction and improvement of the agriculture of the tenants. Where no landlord class exists the most fruitful agency will be a co-operative organization of purchasing and sales societies, combined with numerous agricultural instructors maintained by Government or otherwise. If the landlord class can be induced to take an active interest in the promotion of agriculture, there is no doubt in my mind that a higher standard of production will be reached more rapidly in *zamindari* tracts than in *ryotwari* areas. I believe that this outcome is not only possible but is the most practicable if people would only realize the nature and urgency of the problem. It is this conviction which is the justification of the point of view which I have taken throughout these lectures.

H. STANLEY JEVONS

The present is indeed the time for action, for I cannot help viewing the future in the rural districts of India with grave concern. In almost every ancient country there came with the growth of population a stage when the land came under the proprietorship of feudal landlords whose function was to protect their *villeins* and tenants, for which they were paid a rent in kind or in labor, and later in cash. Everywhere with the growth of power of the central Government these great landed chiefs degenerated and became commercialized ; they lived luxuriously in the capital cities and handed over their estates to agents for management. It was so in England in the 15th and 16th centuries, in France in the 18th century, in Russia in the 19th and 20th centuries. In every one of these countries, and others, there has followed an uprising of the peasants. In England there were the widespread disorders of 1536, repressed in the West with much bloodshed. We know that the French Revolution was largely agrarian in origin. In Ireland the pressure was relieved by emigration. In Russia the unrest of the cultivating classes, which prevailed before, was deeply stirred by the recent Great War and its social reactions. The first, or political revolution, did not affect its causes, for the Constitutional Democrats could only propose gradual reforms, and the Russian peasants were tired of promises. Then the theorist followers of Karl Marx and Tolstoy gathered strength and associated with themselves the peasant party to whom they implicitly, if not explicitly, gave license for the destruction of the land-owning class. Throughout the vast area of Russia the peasants seized the palaces of the nobles and houses of the smaller landlords, and divided up their home farms amongst them. The aristocracy of Russia is either dead, or in exile, or starving in the streets of Russian cities.

Doctrines having a close resemblance to those of Tolstoy

are now being preached in India ; but not at present those of Marx. Consequently we have a breathing space. Yet we must not underestimate the immediate growth of unrest due to two distinct groups of causes : the one purely economic and the other political. The economic cause is mainly the growth of population and a commercialized land system ; but the political is more complex. The constitutional reforms, especially the grant of the franchise to tenants, and the speech-making which has followed, are specially responsible ; but the return of soldiers and men of the labor corps from their service in foreign lands is also an important factor. At last the idea is abroad that men have rights. This is an element of progress, and should be a matter of congratulation ; but it is also an element of danger. That danger can only be averted by such changes as will adjust the economic fabric to the awakened political consciousness. It is impossible for India to continue much longer with a mediæval land system. In Europe the transition to modern conditions came about more or less gradually ; in India, on the other hand, the most advanced civilization of the West impinges upon a social fabric and corresponding land system having many of the economic characteristics of the feudal period. The situation is for this reason all the more difficult.

It may arouse your interest in the economic problems which I am about to discuss if at the beginning of this course I give a brief general statement of the conclusions to which I have come, and which I shall proceed to justify. The most fundamental question is, what point of view should be adopted ?—What is to be the general object of our land policy ? I answer without hesitation that it is the duty of the legislature to look forward to the distant future, and not merely to apply temporary palliatives. It is necessary so to reform the land system that it may conduce to the benefit of

the whole community and may bring the largest measure of prosperity to the country. This can be done only by devising a system of land tenure the principal object of which will be to promote the improvement of agriculture. I hold that the landlord system is not bad in itself ; and that if the landlords—and in this name I include all talukdars and big zemindars—can be induced to take an enlightened view of their responsibilities, to undertake the development of their estates and to promote the welfare of their tenants, far more benefit will accrue to the country from the maintenance of the landlord system than by seeking to extend any system of peasant proprietorship, or sub-proprietorship, in which I include the occupancy tenant system. The present time, when improved methods of agriculture are receiving attention and exciting much interest in this country, appears to me more favorable than any previous period for inducing landlords to adopt more liberal methods of managing their estates ; but if they fail to realize their duties as land-owners, strong measures should be taken to dispossess them and either to replace them by better landlords, or to facilitate the purchase of full proprietary rights by the tenants. I am altogether against introducing the occupancy system in Oudh ; and believe that it must be gradually abolished in the Province of Agra. Divided control over land means stagnation.

Government has given the talukdars and zemindars their present position ; and it would be unjust to place fetters upon all of them without discrimination, *i.e.*, upon those who are good as well as those who are bad landlords. Steps must be taken to educate the landlords and their agents in the proper methods of estate management ; and some judicial machinery must be devised whereby those landlords who fail grossly in their duties shall be dispossessed. The analogy of arbitration boards in industrial disputes suggests itself, but

would need careful working out.

The Oudh tenancy system seems to have been devised with the right objects in view, but with too many loopholes for legal evasion. All practices opposed to the spirit of the Act should be prohibited by law in detail; and every effort should be made to enforce the law. At the same time, the best protection of the tenants is to raise their standard of efficiency and their standard of living, which may be accompanied by some measure of education. This will tend to decrease the competition for land and increase the labor supply for the development of industries; and at the same time it will put the tenants in a position to protect themselves by obtaining enforcement of the law. To reach these ends there are many reforms in which Government must directly concern itself. The most important is the consolidation of scattered holdings. This is to be followed by demonstration of improved agricultural methods, and by distribution of improved seed—through the agency of the landlords, if possible. Assistance needs to be given in the draining of land by the construction of main drains to all villages where the land requires drainage; irrigation facilities should be extended, not only from the canals, but also by grants of loans through the Agricultural Department for the construction of wells and small pumping schemes. The staff of the Agricultural Department needs to be enormously increased: and if officers be rightly chosen every pice of such expenditure will be highly remunerative to the country.

Agriculture being the greatest industry of the country, technical classes in this, and in estate management, are even more necessary than technical schools for industries. Everything should be done to encourage talukdars and zemindars to study agriculture themselves, and to improve the cultivation of their home farms. They may then become interested in improving their tenants' cultivation and may

come to realize the great possibilities of advantage to themselves as well as to the tenants and to the country as a whole. The standardization of methods of estate management, including forms of lease, of receipts for rent, and of compensation for tenants' improvements, must be taken up, at once ; but at first in a manner definitely regarded as experimental. The English law of landlord and tenant, and especially the Agriculture Holdings Act of 1908, will provide useful analogies.

LECTURE 1

THE GROWTH OF POPULATION

It is necessary at the outset to gain a thorough insight into the economic laws governing the growth of population and its relation to rents. This subject is but little understood, which is unfortunate, because of its supreme importance. It is necessary to understand the part played by the standard of living in determining rents as well as wages. Economists are now agreed that the standard of living to which a class of workers has become habitually accustomed is a factor of prime importance in determining the rate of wages which they will receive ; for should a reduction of wages below that necessary to maintain the standard of living begin to occur, either as a result of falling demand for the commodity, or from an increase of that kind of labor, the workpeople resist the fall by every means at their disposal. It will be found that they tend either to transfer their services to other industries or to adopt a powerful trade union combination. In one way or another the standard of living reached by that class of workers is maintained and the market price of the commodity they produce must be based upon it. Of course, there are occasional instances of dying industries in which the standard of living of workers does actually decline ; but in almost all employments after a wage rate has been reached

which permits a certain advance of the standard of living to be maintained for a period of, say, four or five years, any subsequent reduction of that standard of living is strongly resisted.

Now cultivators are a class of agricultural workers who in addition to laboring themselves undertake the risks of the success of their agriculture. The standard of living which they reach operates in exactly the same way to maintain their earnings. The cultivator carefully calculates what he is likely to be able to realize from crops upon land he proposes to rent and what his expenses of cultivating will be. In competing to rent more land a cultivator will not, as a rule, offer more rent than can be paid according to his estimate without reducing their average earnings. His average earnings during the past few years usually determine pretty closely the standard of living adopted by a man; and when a class of people has become accustomed to a certain standard of living, there will not be higher bids of rent than will enable them to maintain their accustomed standard of living. Whilst this is generally true, it has to be remembered that in every community there are persons incapable of making a careful estimate, and others who are over-sanguine or of reckless temperament who will offer any figure however high in order to obtain the particular piece of land on which they have set their fancy. One of the evils of letting land to the highest bidder is that good cultivators are turned out in favor of such men, who exhaust their resources in two or three years and desert the holding, leaving it in an impoverished condition. Where lettings are made without auction, however, the level of rents is determined, other things being equal, by the standard of living. The qualification "other things being equal" is of course very important; for in actual practice other things never remain the same. It will be found that rents do actually rise at the same time that

the standard of living is rising. This is either because a higher level of prices has permitted the standard of living of cultivators who raise commercial crops to rise, and rents at the same time ; or because the total production of agriculture is increasing owing to the improvement of methods of cultivation. The increased produce becomes divided between the cultivator and the landlord ; but the share which the cultivators retain depends largely upon how far the standard of living of their class rises at the same time.

There are some important features of the standard of living which require our attention. It appears to be a general economic law that when the standard of living is low, practically at the subsistence level, it is difficult to raise it, and when it has been raised from this low level it is easily depressed again by adverse economic forces. In the cotton-growing districts many of the cultivators did exceedingly well during the last three or four years of the war : and undoubtedly their standard of living was beginning to rise. It is probable, however, that the present collapse of prices occurring whilst cultivating costs are still high is depressing them again to the old standard of living. As soon as a moderately high standard of living has been attained and become fixed in a certain class they exhibit both a capacity to rise further more easily, and a strong resistance to any depression of the standard of living.

The standard of living of the great mass of the rural population throughout the larger part of the Ganges Valley, and in fact throughout most of India, is merely at the subsistence level ; and their earnings must rise and fall in proportion with the cost of living. It has been observed in Europe that the higher the standard of living of any class of the population the less prolific it becomes. Various causes such as the education of both men and women combine to reduce the birth rate in any section in which a higher level

and variety of wants is developed. This applies as much amongst the upper classes in India as in Europe.

With regard to the present problem of Indian rural conditions, it is important to note, however, that the tendency of a high standard of living to limit the growth of population does not come into operation until a very high standard has been reached. The first effect of increased earnings on any class of people who are at the subsistence level is to reduce the action of the positive check of starvation and disease, and to allow a more rapid expansion of the number of that class. It will need, therefore, a considerable and rapid expansion of earnings to lift the mass of cultivators to such a standard of living as may begin to restrict the growth of population.

A further analysis of the population question is necessary. It will then be seen that the benefits supposed to accrue from a peasant proprietorship or ryotwari tenure are, in fact, largely illusory when the standard of living of cultivators is very low. We may consider four different cases: the first of these is hypothetical, and the rest are more or less reproduced in actual conditions in India. In the first case we assume the peasant cultivators with low standard of living settled in a country where there are no landlords, and where the Government exacts no land revenue or taxes whatever from small cultivators of, say, less than 50 acres. It does not matter how the Government manages to exist: for our purpose the important point is that out of the gross produce of agriculture in any given district of small cultivators nothing whatever goes either to the maintenance of the Government or the support of a landlord class. In these circumstances, the cultivating population whose standard of living is very low can go on increasing in number, and they will do so until the limit of the sub-division of holdings has been reached, that is to say, the minimum size

of holding which will support a family. Once this limit has been reached the increase of population ceases, the condition of the greater section of the people degenerates until the positive check of starvation and disease keeps the death-rate equal to the birth-rate. The important point to notice for our present purpose is that in these circumstances the land supports the maximum population possible with a given technique of agriculture and industry. Furthermore, it is to be observed that all improvements of agricultural methods which can be adopted by an illiterate population with low standard of living will merely tend to increase the density of the population in the district, that is the number per square mile. Facilities granted for cheap credit, and even permanent improvements of the land, will have the same effect: they merely increase the number of persons living on the land per square mile. In comparing the four cases of different land tenure, however, I assume that the method of cultivation and the degree of the improvement of the land is the same in every case. All conditions must be the same excepting only the difference of tenure.

In the second case we may assume conditions which are familiar under the name of ryotwari tenure. The cultivators hold their land subject only to payment of revenue to Government, and there are no landlords or other intermediaries. In this case the gross produce of the land is not entirely available for the support of the rural population, consequently the population cannot multiply to a density equal to that of the first case, and the minimum size of holding for every grade of land must be larger.

In the third case let us assume that the cultivating population pays rent to a landlord class who pass on a large proportion of it as land revenue to Government; but that there are various restrictions upon the increase of rentals, by occupancy rights and so forth,

so that the landlords cannot obtain the full economic rent. In this case the gross produce has to support not only Government but also a landlord class, and the minimum size of holdings will again be larger. It is worth noting in passing that the landlord class living upon rents is itself liable to multiply in number by natural increase within the limit set by its standard of living ; and, in so far as rents cannot be raised, the younger members of the landlord class are largely squeezed out into occupations in the cities or foreign countries. Yet according to Hindu Law they take their share of the rentals with them.

In the fourth case let us assume that all the land is in possession of the landlord, and that there are no legal restrictions on the increase of rentals so that the tenants pay practically the full economic rent, keeping to themselves merely a margin of subsistence. In this case the gross produce supports the Government and the landlord class, and a smaller number of cultivators, and the density of population is the least of all the four cases.

The important point to be observed is that from the point of view of the cultivating class, there is not much to be said in favor of any one of these systems as against another, for in every case the cultivating class having a low standard of living will find its earnings sooner or later reduced to the mere level of subsistence. The advantage commonly urged in favor of either of the first two classes, that is, peasant proprietorship, that the peasant has every encouragement to make improvements on his little farm, because he is likely to reap the full benefit of them is largely illusory, because the more such improvements are made the smaller becomes the holding on which the average cultivator has to support his family. There is no getting away from the fact that it is the standard of living which is the chief factor in regulating the earnings of the people.

It appears therefore that these various systems of land tenure differ ultimately only in the maximum density of the rural population which they permit for a given soil and climate. There is indeed much to be said in favor of the landlord system on grounds which I shall presently explain. In passing it is worth noting that relief to the growth of population, which would enable peasant proprietors, or others with fixed tenure rights, really to profit by improvements they might make, could only result from an active emigration of nearly half the number of the younger people of each generation either to newly opened agricultural tracts or to cities of growing industrial importance.

It is obvious at the very commencement of our enquiry that, in a country whose economic condition is stationary, or in which the economic development is slow, the character of the land tenure makes practically no difference as regards the welfare of the cultivating population, and that the only difference is in the ultimate density of the population. It may possibly be a question of controversy as to whether a large population is in itself a desirable object of statesmanship. There have been periods in the histories of many countries, if they appeared to be threatened with invasion by a foreign power, when the increase of population seemed to be of paramount importance. Yet even here it has to be remembered that a small population with a high standard of living may be more efficient in the defence of the country than a vast population existing merely at the subsistence level. For my own part, I would unhesitatingly say that a large population is not a desirable end; and I shall assume throughout the rest of this course of lectures that the aim of the economic reformer should rather be to restrict the growth of population and to raise as large a proportion of the people as possible to a high standard of living.

We have not, however, finished with the difficulties inherent in the growth of population, for we may observe that it appears to be almost impossible to avoid a landlord class coming into existence in any tract of country which is highly fertile and where the standard of living of the cultivating class is low. Let us contrast the highly fertile land such as that of the Ganges Valley eastwards from Allahabad to the alluvial lands of Bihar, with the barren hills of parts of Central India or the rocky valleys of the foot-hills of the Himalayas. In those barren lands the cultivator with difficulty ekes out an existence on a holding of, say, 12 acres, and paying only about eight annas per acre revenue. The land is so unfertile that the gross produce can hardly expand sufficiently to support a landlord class. Particularly is this the case where the unfertile but cultivable land is scattered amongst absolutely barren wastes, for there no landlord can find a profit in the task of supervising his estates and collecting the very small rents which alone are possible. Consequently in such regions we generally find no landlord class.

On the other hand, in highly fertile regions, even if the population is first settled on the land with proprietary rights from Government at quite a low revenue, there is no reason to suppose that the landlord class will not in course of time arise as a mere result of the economic conditions. The gross produce from the land is capable of considerable expansion by more intensive cultivation. Here and there a cultivator is ambitious and saves a little capital which enables him to work more land. It pays him either to break some land from the waste if available or to rent some fields or to work on some system of sharing with the owner. Often he will save enough to purchase the proprietary right. In the course of years an energetic man will manage to buy so much land that he need not live wholly by his own

cultivation, but can let out much of his land. If still ambitious, he will continue to save and buy more land ; and ultimately he will live solely on the rents of his small estate. The sons brought up to hard work may follow his example and greatly extend the family estate ; but *their* sons brought up to an easy life are content with living on the proceeds of their father's savings.

There is another way in which the landlord class develops where no law prevents it. When the land is fertile, the cultivator can in ordinary seasons expand his income by greater labor, or some one else in his place can do so. The *bania* or *mahajan* trades on this fact and advances money to the cultivator on mortgage of his holding. Many of such loans are not repaid, and the land falls into the hands of men of the merchant and financial class who rarely make good landlords. The latter form of encroachment on peasant proprietorship has been to some extent retarded by Land Alienation Acts ; but, as in the Punjab, if the trading castes are excluded from the proprietorship of land there soon arise money-lending individuals amongst the cultivating classes, and the same result ultimately ensues. Throughout the ryotwari tracts of India, and the great canal colonies, the gradual formation of a landlord class is going on, wherever the land is sufficiently fertile ; and it may be doubted whether any law can stop it. Even if rents were made irrecoverable at law, this would not prevent a man letting his land to villagers whom he knows to be trustworthy men and whose interest it would be to pay the rent regularly lest they should be turned out as trespassers. Farming through tenants who are nominally partners is also another device which no law can prevent. Hence it appears to me impossible for any law to prevent the growth of a landlord class where the economic conditions permit it, when the one essential condition is satisfied, namely, that there is a large

body of cultivators with a low standard of living.

It must not be thought that I would argue from this that it is *desirable* to establish the landlord and tenant system everywhere. As I shall point out shortly that system is capable of being the most advantageous to the country, but it may also be the worst system. We must always keep in view therefore the "principle of variety," namely, that it is good for every country to have differences in different parts. Differences of tenure are quite possible even in the same district; and there is no reason whatever to aim at creating uniformity, except of course as regards the particular privileges and obligations which may be imposed upon landlords and tenants.

Having seen that the growth of a landlord class cannot be altogether prevented in rich tracts, but only retarded, it may be well to enquire whether a landlord class is a desirable part of the commonwealth. If it is not, steps could be taken to abolish it by forcing sales of proprietary rights to tenants, or by state acquisition, by retarding the subsequent re-aggregation of holdings, and again abolishing landlords' estates every thirty years or so if necessary.

I think we shall be agreed that the only justification for the continued existence of any class of persons being favorably regarded is that they contribute something definite to the well-being of the whole community. An important aim of economic policy always must be to rid the country of the parasitic classes of persons who simply live upon the hard work of others without contributing directly or indirectly to increase the total production of the community or to promote religion or learning or culture and social enjoyment. The criterion as to whether it is good for a country to have a landlord class or not depends, therefore, upon the character of the men composing that class, and what view they take of the responsibilities of their position. If the

landlords are good, it is better for the country to have the landlord and tenant system rather than peasant proprietorship ; on the other hand, if the landlords are bad and merely parasitic on the community, they drain the other classes of wealth and produce nothing in return. It is better to have peasant proprietorship than a landlord and tenant system with bad landlords.

This necessarily brings me to consider what a good landlord should be—what his functions are in regard to his tenants, and in relation to the community at large. To answer this question in a few words, I should say that the landlord ought to be the brains directing the agricultural operations on his estate. It should be his object to raise the cultivation by his tenants to the highest possible standard in outturn and profit. He should see to all the wants of his villagers—provide good wells and suitable sanitary arrangements. Above all things it should be his particular duty to carry out permanent improvements of the land both by erecting buildings and fences and by making drains and other works. He must manage to save from the revenue of the estate a sufficient amount in every good year to enable these improvements to be carried out. Having the good-will of his tenants, they can in fact be very cheaply carried out.

This brief suggestion of the landlords' duties will be elaborated in a later lecture. It is perhaps sufficient to show that he has a highly important place in the agricultural economy of the nation. If he understands and exercises his duties, agriculture will be progressive, the condition of tenants will improve and a spirit of co-operation will replace the existing animosity. Some grumbling we must always expect,—for is not that the prerogative of farmers all over the world?—but there is no reason why a general spirit of mutual understanding should not prevail between

landlord and tenant, the causes of friction being reduced to the least possible by a standardised system of leases, which include conditions requiring good cultivation from the tenants. Every tenant when admitted must know exactly what is expected of him ; but discipline also must be maintained, and for this reason the landlord's power of ejection is an absolute economic necessity. It should be the landlord's business to see that every piece of land is devoted to that use in which it will be most fruitful, and to see that no tenant by his negligent cultivation damages his neighbor's land or crops. The great and difficult question into which the problem resolves itself is how to teach the landlord class their true economic function and induce them to exercise it.

LECTURE III

OTHER ECONOMIC FACTORS

Perhaps the most important conclusion of my first lecture was that relating to the function of the landlord class in the national economy. It will be remembered that I stated that if they understand and exercise their business they ought to be the brains and organizing power of the agricultural industry. Their guiding hands are needed to promote progress and safeguard efficiency. Consequently the landlord must not only usually be a resident upon his estate—he should also look upon his duties as a profession. On the other hand, absentee landlords who merely receive the rents which their agents can exact from a zemindari which remains unimproved are a drag upon the nation—socially a parasitic class. We saw that peasant proprietorship was better than a system of rent-receiving absentee landlords; but that the best system of all for the promotion of the country's economic welfare is a landlord system with a class of resident landlords who take a vital interest in their tenants and the promotion of agriculture.

In the present lecture I propose to consider the economic conditions under which agriculture is carried on and the relation of the landlord to them. This will provide us with useful ideas as to the financial aspects of the landlord's business; and when in possession of this information we may proceed in future lectures to see how the tenancy law may assist the landlord in the proper conduct of his business whilst yet offering to the tenant all necessary safeguards.

There are certain broad economic movements which in their progress automatically affect the landlord's position, sometimes advantageously and sometimes adversely. These he, as an individual, and even as a class, is powerless to alter ; but he should make it his business to be acquainted with them so that he may swim with the tide, so to say, making use of every opportunity of adapting the control of his estate to the trend of economic forces.

We saw in the last lecture how population continually tends to grow. This of itself alone increases the competition for land and so enlarges the economic rent. Hence, the landlord, with no exertion of his own, can get some increased rental by the mere lapse of time. Another factor tending greatly to increase the total money produce of agriculture and the net surplus retained by landlords is the development of communications, particularly cheap transport over long distances by rail and river, and the development of roads for linking up the railways with the larger villages. Herein, if they would but realise it, lies the most profitable field of activity for zemindars and talukdars, in stimulating the district boards to embark upon extensive programs of road improvement.

The effect of cheap long distance transport is to revolutionize the system of agriculture, changing what has formerly been of necessity a subsistence economy into a commercial economy. When there are no railways and no roads every small group of villages must be practically self-sufficing, and its inhabitants must grow a little of every kind of product they require whether the soil be suited therefor or not. When long distance haulage is cheap, on the other hand, it is possible for every part of the wide territories of India to specialize in growing those crops for which the land and climate are most suitable in each place. By this means the produce of capital and labor applied to the land is very

greatly increased—in far greater proportion than the mere cost of transporting the produce from one part of India to another. This specialization has already begun in parts of India; but there is room for very great progress in this direction, and there are few things more profitable to which the landlord can turn his attention than to discover those crops which are particularly suitable to his locality and to induce his tenants to take up their cultivation.

An important economic force which affects the welfare of both landlords and tenants in different ways is a change of the general level of prices. The effects of a general rise of prices such as we have recently experienced are very complicated, but the main features are these. The tenant who cultivates crops for sale should gain theoretically, but actually he derives only a partial gain; for much of the benefit of the rise of prices is absorbed by intermediate merchants and village money lenders. Such advantage as has accrued to the tenants from the rise of prices during the war has not lasted long enough permanently to raise their standard of living, and the increase of population will rapidly depress them to their old condition on the subsistence minimum. The landlords have suffered by the rise of the cost of living, because they could not increase their rents to provide increased profits in proportion to the rise of the cost of living. The latter has certainly risen fully 40 per cent since 1915; but in this time the Oudh landlords could only, according to law, increase their rents on the average about 5 per cent, or their profits, assuming the land revenue to remain unchanged, by about 10 per cent. For this reason some of them have been forced to adopt practices contravening the spirit of the law.

When a general fall of prices comes, as it must come, the events will not be merely reversed. The advantages which it might be thought the tenant class had

derived from the rise of prices have in fact been largely dissipated in the manner I have indicated ; and it will not be possible to reduce the cost of cultivation or the population. Consequently with falling prices the landlord class will not be able to go on increasing their rents. They may keep the rates of rents stationary, but will have increasing difficulties in actually collecting them. New settlements will gradually absorb much of the advantage they might secure from a falling cost of living. The economic conflict between the two opposing classes is bound, therefore, to become more severe so long as landlords remain mere rent-receivers. Harmony can only be attained by inducing the landlords, and then permitting them, to exercise their true function of organizers and directors of the agricultural industry.

A full understanding of economics tells us clearly that the welfare of the Indian people demands the increase of the produce of the soil to the maximum. What we need is the greatest yield per acre of every crop, grown in the locality which suits it best. Increase this, and the wealth circulating throughout all classes of the community is bound to increase : this will stimulate industries and provide the means for a higher standard of living amongst all classes.

An important distinction is to be drawn here between increasing the net produce and the gross produce of agriculture. The former may be achieved by cutting down the costs of cultivation, particularly by displacing labor by machinery, by replacing intensive by extensive farming, by converting arable land into irrigated pasture for cattle and sheep raising. These may prove most profitable branches of farming enterprise, and within reasonable limits will be beneficial—particularly where applied to lands now waste. The improvement of the profits of cultivation is not, however,

the policy which will be the most beneficial to the country as a whole, in so far as it is achieved without increasing the total wealth produced from the soil. What is needed is that the primary industry—agriculture—shall, from the lands of India, put a larger total of wealth into circulation every year. Agricultural experts are unanimously of opinion that the average yield of produce per acre in India could be doubled, and in many parts even trebled; and the effects of this in providing cheaper food and cheaper clothing for the whole population, and in setting free labor for the manufacture of machinery and of luxuries, would be almost beyond the imagination. The result would be the raising of the standard of living to that of a European country. It is essential, therefore, that the tenancy policy should aim at increasing the gross produce of the soil to the utmost.

This great economic advance has to be achieved by the investment of a great amount of capital in the land, and in the livestock and implements of agriculture, and by the diffusion of knowledge and organization. My contention is that this can best be effected through the agency of the landlords who should be stimulated and assisted to develop their estates.

Proceeding, therefore, to consider the economic development of estates we may adopt the following classification of the various ways by which the productive capacity of an estate may be improved: (1) permanent improvements—wells, pumping schemes, farm buildings and granaries, silos, drains, fences, etc. (2) establishment of a better tradition of cultivation by “trying out” various new methods and retaining those which succeed, and (3) improving and maintaining the strains of plants and animals by selection and breeding. The economic benefit to the whole country by having these improvements carried out by landlords—and

they alone can do them on an adequate scale—would be incalculable ; and it may be pointed out incidentally that landowners will largely increase their rent rolls by such intelligent development. Obviously this is a perfectly justifiable enlistment of self-interest, which will be an important factor in securing the economic development of the country.

It is a most important principle that the tenancy system should be such as to provide due incentive to make an improvement for the person most capable of initiating it. The tenant, short of capital and with scattered fields, can never do anything appreciable : the landlords must somehow be induced to take the initiative.

It must not be thought that I recommend a tenancy policy which merely aims at increasing the profits of landlords to the maximum. Quite the reverse. I want them as a class to work for their living. I am convinced that it will be in the country's interest to go through a stage of the development of agriculture by landlords ; and means must be found to achieve this. My ideal is the paternal landlord, studiously organizing his estate, benevolent to his tenantry and occupying a central position in the social life of the country-side.

LECTURE IV

LANDLORD AND TENANT

The preceding lectures have been devoted to an analysis of the economic factors which affect the relation between landlord and tenant. In the present lecture I propose to deal with their relations from the point of view of the efficiency of agricultural production ; and thereafter to seek the principles which should regulate the tenancy law in accordance with the economic generalizations which have been explained.

The true function of the landlord class is to act as the organizers of the agricultural industry. They must learn improved agricultural methods and then arrange that their tenants may learn them. It is their function to attend to the development of their estates. It is also the duty of the landlord to dismiss bad cultivators, giving compensation for any improvements made by them, and to select and encourage those who are the best husbandmen. The wealth of the country depends very greatly upon the efficiency of agriculture and it is only by seeing that the land is in the hands of those who can use it best, that the maximum of crops can be raised from the available land. It is necessary to aim at the maximum of wealth production per acre, and also at the same time to secure the maximum of output per head of the population engaged in rural occupations.

The most efficient unit of organization in the agricultural industry is not the holding of each cultivator, unless these holdings are large farms of hundreds of acres each. The realization of this has led to the development in some

countries where peasant proprietorship prevails of agricultural co-operative societies for the combined purchase and sale of produce. Such co-operation is suitable for any country where democratic ideas prevail, and where a sense of freedom and independence are valued beyond many of the material goods of life ; but the co-operative ideal can only be successfully translated into practice when a certain stage of education and of social and political development has been reached. In my opinion India has not yet reached that stage ; and co-operation can have but little effect in the improvement of agriculture in India.

The alternative unit of organization is the landlord's estate. Here there should be a spirit of co-operation between landlord and tenant, the landlord being the guide, philosopher and friend of his tenants ; but also their master. No industrial concern can be successfully managed unless discipline be enforced. If a landlord's estate is to be managed to the greatest economic advantage of the country, a certain measure of discipline must be enforced on the estate. No tenant should be at liberty by his carelessness, ignorance or negligence in cultivation to exhaust the soil, or to damage the crops of neighbouring tenants, as when he neglects to clear his land of weeds, or drains his fields into those of his neighbor, or lets his cattle stray. For the prevention of contagious diseases amongst animals, for economy of fuel and manure, there are certain rules of estate management, the observance of which should be insisted on by all good landlords. We may rightly see in the landlord who exercises his agricultural function an employer of labor who, instead of engaging a large number of laborers directly under his control, hires out the use of his land, improved with a certain amount of his capital, under certain conditions which will ensure the working of the whole estate to the mutual advantage of the landlord

and all his tenants. This is the ideal which has been evolved in England and is applied in practice in the English tenancy law.

The conflict of ideals between the peasant proprietorship with co-operative organization, and the highly organized landlord's estate is liable to lead to much loose thinking, and consequently to very ill-advised measures of practical endeavor. In India the public, finding that only a few landlords realise the position they should occupy in the agricultural economy and exercise a useful function, has turned very widely to the co-operative ideal. Much effort has been expended ; but the ground has not proved fruitful. Co-operative credit societies are flourishing in considerable numbers ; but with how little effect in the improvement of agriculture ! The number of co-operative societies in these Provinces which are really promoting the progress of agriculture by distribution of better seed and implements or any other way could be counted on the fingers of both hands. The fact is that the rural population of India has not yet arrived at the stage of educational, social and political development in which alone co-operation can influence efficiency or production. Even if such an educational and social development had been reached, the system of scattered holdings on minute fields effectually prevents its being efficient in application.

There is no doubt in my mind, therefore, that the agricultural organization most appropriate to the stage of social development in India is the landlord and tenant system with fairly large estates, and a certain number of large farms worked by gentlemen farmers.

As to the economic efficiency of the landlord system when operated by a class of landlords who understand their business and practise it, there can be no question ; but it must be understood that, as pointed out in my first lecture,

the landlords should earn their living by exercising their true function as the brains of the agricultural industry. If they do not do that, they merely waste the substance of others and are a burden on the community.

The landlord exercising his proper function as guide, philosopher, friend and master of his tenant is, indeed, a high ideal. It is nowadays the fashion to praise everything democratic and everything tending to the freedom of the masses. But the true ideal must be relevant to the state of development of the people, and with this important principle in mind, I maintain that the landlord exercising his true function is the highest ideal for the conditions now prevailing in India or likely to prevail within the next fifty or hundred years. The broad fact is that the people need leaders; I do not mean the "stump orators" who merely stir their emotions, I mean men of action who can direct the work of others. The nature of that leadership cannot be set forth better than by Ruskin whose writings on industry have not received the attention they deserve. Let me refer you to some passages in his book entitled *Unto this Last*. Ruskin wrote in words relating to England—an industrial country—so his illustrations relate naturally to commerce and manufactures, but we can easily see the application of his principles to landlords. Translating his ideas to the realm of agriculture we easily see that it is the landlord's function just as much as that of his tenants "to provide for the nation"—he with his brains and his savings, they with their hands. The tenants are his children—they need his guidance, his support. With them he can rejoice, and with them he must suffer. "The manufacturer in any commercial crisis or distress, is bound to take the suffering of it with his men."*

And men will ever honor the landlord who thus regards

* *Unto this Last*, Section 24.

his function and faithfully strives to fulfil his duties ; and men will despise the landlord whose sole interest is his swelling rent roll—careless of the struggles of those who pay, himself contributing nothing and living in luxury. He is rightly despised.

This leads me to notice a by no means pleasing feature of the changing economy of these Provinces. I refer to the growing habit of purchasing land as a mere investment of capital. Lawyers and wealthy merchants who have money to invest are keen on buying zemindari estates. The purchaser continues his occupation in the city and puts an agent in charge or sometimes continues the former agent. Land is bought and sold merely on the estimate of its earnings to the owner. The total annual collections are ascertained and from this is subtracted the revenue payable to Government, and the balance is called the profits. The price paid by the investor varies from 25 to 30 years' purchase of the profit, representing a yield of 4 per cent or less upon his money. This seems peculiar in view of the fact that the yield on the most convenient security in India, namely, Government loans is 6 per cent per annum. The investor in land is probably influenced partly by an anticipation of an increased profit and partly by his desire for the social status conferred by being a zemindar or rai. It cannot be that the majority of such purchasers of land are good landlords. Indeed many of the troubles between landlords and tenants, for which the remedy must be provided are due to the new owner taking a purely commercial view of his property and trying to exact that increase which he has anticipated, and also to his lax control as an absentee landlord, over his agent and his subordinates. I shall have to refer again to this difficult problem in a later lecture.

The principles which should govern the relation of the

State to landlord and tenant now require our attention. The general principle upon which the greater part of our legislation is based is that which Sidgwick calls "The individualistic minimum of governmental interference." This seeks to realize the greatest happiness of the people by allowing the maximum of freedom, and imposing restraint only so far as to prevent definite injuries by physically or economically stronger persons on the weaker, and in general to avoid infringements of liberty. There are, however, two other important principles on which legislation is sometimes based—the paternal principle which regards it as the duty of the State to make laws guiding the conduct of persons for their own benefit, as for example, prohibition of consumption of alcohol or smoking by children ; and on the other hand the socialistic principle in which the State definitely interferes and concerns itself with the welfare of the whole community. There is no reason to object to the socialistic principle for land legislation in India, excepting on the ground of the difficulty of securing its enforcement, as will be seen in an example which I shall mention later. The principle of the minimum of interference is undoubtedly that which will lead to the best practical results, for if the legislation be well devised with due consideration of all the economic forces and social tendencies acting on the population affected, considerable results may be obtained with a degree of interference which is easily enforceable, and liable to produce but little friction or irritation. The paternal principle of legislation may also be kept in view as applicable to this case so far as the conditions allow of enforcement.

In relation to the land the State really occupies a two-fold position. In the first place the State is the superior landlord of the whole country. This still remains a legal

* *Elements of Politics*, 2nd ed., p. 44.

fiction in England where even freeholders are tenants of the State free of rent. In India the interest of the State in the land is closer, and the practice of making temporary settlements by actual contract with zemindars is evidence of that position, although it is a fact that zemindars, talukdars, malguzars, and other holders from the State are rapidly gaining the position of freeholders in England subject to a land tax revised at intervals. My own view is that the degeneration of the State's interest in the land should not be allowed to proceed further, and that it would be beneficial to the whole community if the State were to assert its rights of overlordship.

Just as the good landlord looks after the welfare of his tenants and assists their agriculture, so the State should take a fatherly interest in the affairs of the landlords and see that they conduct their business properly. Arguing from this point of view we shall easily see that it leads to an important conclusion : namely, that there is no objection on principle to putting definite estates as such under special treatment, whether it be in accordance with special rules laid down by the Board of Revenue under provisions of an Act or whether it be by some more direct form of administrative control.

The other relation which the State has with land is the application of general law. Legislation as between landlord and tenant is framed mainly with the object of preventing abuses which arise on a minority of estates. Legislation on the principle of the minimum of interference must be applied uniformly to all land throughout the Provinces. If such laws be designed in sufficient detail to control all possible abuses in the management of land, they cannot fail to be highly burdensome to good landlords, and needlessly so, because the good landlords do not need control.

My conclusion is, therefore, that the law as between

landlord and tenant which is to be applicable throughout the Provinces should be as simple as possible in its provisions, and be capable of almost complete enforcement. Such evils as the law cannot anticipate or provide against, and such as could only be provided against by prohibitions which cannot be enforced, must be controlled in a different way by the paternal action of the State, which must then step in and adopt such special measures as are needed to meet the case in regard to each particular estate.

When we come to examine the main features of the existing Tenancy Acts in these Provinces we see that the development of the law has depended upon the existing circumstances from time to time. The tenancy law has never been thought out with a view to securing the future progress of agriculture. A fixed system was established which prevents progress. It is true that provisions were made in both the Agra and Oudh Tenancy Acts to encourage the making of improvements both by the landlord and tenant : but for various reasons these have worked unsatisfactorily in practice. The great need of the present time is an elastic tenancy system which will give opportunity for the progress of agriculture. It should not be inferred that I think that the proposals which I shall make for present adoption could advantageously have been adopted twenty or thirty years ago. In my opinion the time is now ripe for the first time for a great effort to liberalize the relations between landlords and tenants, and thereby to secure agricultural prosperity.

Recent experience has shown that even the most elaborate tenancy acts are incapable of controlling bad landlords. The public have become well acquainted with some of the abuses practised in Oudh such as the wholesale ejections, the heavy nazrana and the enforcement of *begār*. It should, however, be realized that it is only on a minority

of the Talukdars' estates that these practices are pushed to the point of oppression. Many of the Talukdars are good landlords who manage their estates in accordance with the spirit of the law and within the customs of the locality.

LECTURE IV

CONTROL OF RENTS

The conditions in India are so different from those of England that any proposal to adopt the English system of landlord and tenant as it stands would be absurd. Nor is it to be supposed that the English system is itself perfect. Yet its main features have been developed in accordance with the requirements of progressive agriculture, and it stands as the result of long continued experience of what is practicable in working. In India, however, we have a system already established which has created not only proprietary rights in the soil, but also various sub-proprietary rights. These cannot be ignored ; and however unfortunate it may be, it is clear that, as they were allowed to be created their existence has to be recognized ; and equity demands that they be allowed to continue, or that compensation be paid for their extinction. Another difference is that in India over 95 per cent of the cultivators are illiterate ; they are ignorant of the ideas and methods of improved agriculture, and for the most part hopelessly in debt : whereas the English farmer is literate, though often badly educated. He is acquainted with a more advanced system of cultivation ; and when in debt, this has usually been incurred in purchase of stock for his farm and for other 'productive purposes. Yet the Indian cultivator is intelligent and alive to his own interests. The cultivating castes, such as *Kurmis*, are industrious, and have a wide knowledge of crops and the existing practices of cultivation, and the necessary judgment to do the right thing at the

right time. A very great difference is that the practice of estate management as an art of running estates on proper business lines and developing their productiveness is hardly comprehended in India; whilst in England such knowledge and practice is widespread. It will be my object in the next lecture to indicate the extent and the direction in which the English law of tenancy and practice of estate management may be applied in the existing Indian conditions with the object of commencing a continuous policy of development in that direction.

You may not be convinced, however, that I am at liberty summarily to dismiss as fallacious or impracticable the various proposals for improving the tenancy system of these Provinces which have recently been put forward. I propose, therefore, to examine briefly and critically some of those which have come to my notice. The solution of the Oudh tenancy trouble most frequently offered is the adoption of the system of occupancy tenancy as it prevails in the Provinces of Agra or Bengal, or any similar system. It is generally conceded that the right of sub-letting should be strictly limited; and some would go so far as to limit the right of succession to the widow and the immediate heirs of the deceased, excluding collateral relatives. A somewhat similar, but less drastic, proposal for Oudh is the conversion of the existing seven years' leases automatically into long leases of ten, twenty or even twenty-five years, the rent being subject to the statutory enhancement of one anna in the rupee every five or seven years. The first proposal is practically that of a lease for an indefinite period to a family so long as succession continues in the direct line and so long as some member of the family remains the cultivator of the holding, but subject to moderate enhancements of rent by order of the court on the basis of equality with the general level of occupancy rentals.

The objection which may be raised to both of these somewhat similar proposals is that their tendency is retrograde or at least purely static ; for they will do little to secure better cultivation, excepting such incentive as may be given to a small proportion of the cultivators by their retaining fixity of tenure. We are on the eve of a great awakening of interest in agriculture in India. Many forces are working towards this ; but it is a fundamental axiom in my argument that the landlord class being educated and intelligent men, can be more rapidly and effectively interested in the advancement of agriculture than the tenant class. This may not be true in all parts of these Provinces, for it depends on many factors in the social and educational development of the two classes. Looking at the question broadly, however, I feel that the State, by which I mean both the Legislature and the Executive Government, is more likely to attain results within a reasonably short time by permitting and assisting the landlord class to be the agents for improvement of agriculture than by merely giving the tenants fixity of tenure. In the latter case the great expenditure necessary to stimulate and instruct the cultivators to improve their agriculture would be a charge upon the State ; but if done through the landlords the expense will be much less. Both methods are practicable ; and might indeed be applied at the same time in different parts of the Provinces. My own view, however, is that the greater return in improved agriculture from a given amount of public expenditure will be reaped if it is made clear to the landlords that they are expected to be the agents for effecting improvements of cultivators' methods, the law of tenancy being so framed as to give them the opportunity of doing so with most effect.

Modifications of the occupancy system in which the landlord can buy out the occupancy tenant, or the tenant

buy occupancy rights, are not capable, in my opinion, of removing the objection which can be raised on principle to the creation of new sub-proprietary rights of this nature ; although of course they would lessen the objection. It is not worth while, in my opinion, to consider proposals for the purchase and sale of occupancy rights, excepting as possible expedients during a transitional period.

The principle to be kept ever before us in judging of the advantages and disadvantages of the infinite variety of possible tenures is to devise such a system as will secure in the existing social conditions, the maximum out-turn of produce of all kinds from the soil at the minimum of economic sacrifice—that is to say at the minimum sacrifice in labor and in investment of capital. Above all, therefore, it is necessary for somebody constantly to be selecting and encouraging as cultivators those men who know how to carry on the cultivation in the most efficient manner under the physical and the economic conditions of the locality. In the rural economy there can be no better person to carry on this selection than the landlord assisted by his agent, when they know their business. Furthermore, the system must be elastic, and capable of automatically adjusting itself to social changes, and to the advancing knowledge of agricultural methods.

Let me refer now to another type of proposal which has been discussed in some quarters—the idea that the State should assume the responsibility of holding the balance between landlords and tenants by undertaking the fixing of rents. Two fundamentally different principles are involved in this idea according to the nature of the proposal. On the one hand, it is suggested that the level at which the State should aid in fixing rents should be as nearly as possible at the economic rent for the time being of each piece of land. The margin

of error would be allowed in favor of the tenant ; but as nearly as it was practicable to determine the economic rent, without risk of a mistake injuring the tenant, the full economic rent would be allowed to the landlord. It may be urged, if the principle of governmental fixation on rents is admitted at all, that fixation at approximately the economic rent has two advantages : (1) it will not be necessary in practice to apply it to all estates, but only to those where greedy landlords are endeavoring to force up rents above the economic level, thereby occasioning ruin to successive tenants, who are unwise enough to pay the rent demanded. On ordinary estates managed in a conservative spirit it would not be necessary to bring the fixation into actual operation ; (2) rents being settled at approximately the level of economic rent, there is no surplus to be disposed of except that which goes to the landlord ; consequently the competition for the use of land cannot result in various indirect payments to landlords and their agents for the privilege of securing a lease. Sub-letting will also be impossible for the purpose of the tenant retiring to live wholly or partly on the rent of a sub-tenant or on a half share of a product of his labour if he be taken as a working partner. It is objected to this principle of fixing at the economic level, that it has no effect in raising the economic status of the tenantry, for they are still left with only such earnings as are necessary to maintain themselves at the prevailing standard of living.

The alternative proposal is that rents should be fixed by the State at some level which will be distinctly below the economic rent of the land, thus leaving some surplus of the rent—the true economic rent,—to be enjoyed by the tenant. It will be observed that this second proposal involves the fixing of rents over a far larger proportion of

the agricultural land than in the former case; in fact, if any substantial proportion of the surplus is to be allotted to the tenants, rents must be fixed by State interference over practically the whole territory. The advantage of this latter course would be that the tenants would be able either to increase their standard of living, or save a little capital. They would first repay their debts and then be able to purchase better bullocks and some improved agricultural implements, to sow with their own seed and live on their own capital until harvest time. But there are also two other ways in which the surplus might be utilized by members of the tenant class. Some who have large holdings may prefer a life of comparative ease at a low standard of living; and will sub-let some of their fields or, if this be impossible under the law, would take in a partner who would be required to do most of the work. In many cases, however, the enjoyment of the surplus by the tenant will be comparatively short-lived. Excepting when an epidemic or other disaster occurs to reduce the number of the family, there will almost certainly be several children who, as they grow up, will have to be supported on the produce of the holding. In the absence of education providing the desire for a higher standard of living, the tendency will be for two or more sons to settle on the holding and bring up their families on it; so that the surplus would soon be swallowed up in supporting a larger number of persons. In the conditions prevailing in these Provinces we might perhaps anticipate that 10 per cent of the cultivators would be in a position to save money, through having small families, and would be prudent enough to do so; and that the other three classes into which I have divided the tenants might each perhaps be about 30 per cent of the whole. These figures are of course nothing more than a guess founded upon a general observation

of the people ; and they are given merely by way of illustration of what would probably happen in the absence of an efficient system of rural education and the concurrent development of industries in the towns to attract away surplus labor.

The proposal to fix rents at less than the economic level involves an interference with the distribution of wealth by competition in the direction of a transference from the rich to the poor, that is from the few to the many. It must therefore be classed as socialistic legislation. I do not mean that I object to it on that ground—far from it ; if I considered it practicable and on the whole beneficial to the country in its results I should heartily support it. I fear, however, that it would not only be difficult to carry out in practice, but that the supposed benefits are largely illusory in the present stage of the development of the country.

I do not deny that in a country where there is universal compulsory education, where the tenant cultivators have been taught improved methods of agriculture and are accustomed to prudent and thrifty habits, where co-operation in credit and distribution has taken firm root, and where a high standard of living is set by the productiveness of manufacturing industries, a direct transference of wealth from the landlord class to the tenant class may be effected by State intervention, and is probably, in such circumstances, desirable—at any rate if the landlord class is not fully exercising its true function. Those are not the conditions existing now in the United Provinces ; and it may be doubted whether they could possibly arise until another two generations at least have passed away.

I think the principal results of any such attempt to fix rents below the economic level would be : (1) the establishment of a new and costly department of Government

which would contribute nothing to the productive power of the nation, but concern itself merely with dividing the present exiguous yield of agriculture on a non-competitive basis ; or alternatively, if rents were fixed by courts, an enormous development of the judicial branch. (2) In the former case, the rents being fixed by a Government department, nothing but unpopularity could accrue to Government from undertaking such a business ; for in the case of almost every holding either the landlord or the tenant would be dissatisfied with the rent officially fixed. It is true that in the early years Government might gain popularity with the majority of tenants by fixing comparatively low rents, and at the expense of great unpopularity with the landlord class. The tenants having once got accustomed to low rents would want to have them still lower, and would become dissatisfied if they are not lowered still further. Experience in Ireland seems clearly to point in this direction ; besides it is only human nature that this should be the result. (3) The present stagnation in the progress of agriculture would be indefinitely perpetuated, unless the measure were accompanied by a really energetic propaganda by Government amongst the tenants to teach them improved methods of cultivation by demonstrations in every village, and by the advance of considerable sums in *takavi* loans or through co-operative societies for permanent improvements and purchase of improved stock and implements. The co-operative societies could only be made efficient by a considerable expenditure on a Government-paid staff ; and the progress which might be secured would be at the expense of a very considerable direct charge upon the Provincial revenues. Obviously, the landlord class would have no incentive to do anything to improve their estates or interest their tenants in improvement of cultivation and crops, unless they could be assured that as a result of such

efforts a substantial increase of their incomes would be secured. The rents fixed could, of course, be made subject to enhancement to the extent of a given percentage per annum on the capital outlay by the landlord, but here he enters as a financier only and not as a teacher and director of his tenants' work.

Let us consider for a moment the administrative machinery required for the fixation of rents at less than the economic level. In the province of Agra there are 29 millions of acres of cultivated land, and in the province of Oudh 10 millions of acres. Rents would necessarily have to be fixed throughout practically the whole of this area. It takes a settlement officer about two years to settle the revenue in an average district assisted by a considerable staff, and the cost of a settlement is approximately Rs. 3 lacs. If rents were to be revised throughout the province even once in every ten years a staff would be required equivalent to six settlement officers and assistants in Agra and three settlement officers and assistants in Oudh. The annual cost could not be less than Rs. 5 lacs for Oudh alone.

It may be urged against this calculation that settlement work consists largely in the ascertainment of rent rates and in soil classification, that the former are *ex-hypothesi* known and that the soil classification was made at the last settlement and may be accepted as the basis of rental determinations. As an indirect reply to these criticisms I would say that the fact that we may know at any time in the future the rents that have been legally fixed by previous operations of the rent-fixing staff, does not mean that we know the economic rent. It gives us no basis for revising the legally fixed rents. These could only be revised either (1) by a minute enquiry as to the prices of agricultural produce and costs of cultivation such as has been actually carried out in England in limited areas since 1917, or by admitting a

certain proportion of the land to be let freely at competition rents, thereby obtaining an index of the economic rent on each class of soil in every locality. We are faced in fact with the difficulty which economists have for many years urged against the proposals for the nationalization of land as a measure of improving the lot of the cultivator in Europe—that when all land is in the hands of the State there would be no basis for the fixation of rents, excepting the old one of free competition.

It may be argued, however, that the success with which settlement operations are carried out and revenue is settled throughout the whole district show that an officer with experience and exercising his ordinary common sense could hit upon a happy medium in the way of the fixation of rents which would not be unfair to either side. To this I would reply that it is not really a fair comparison, for the land revenue is not itself a rent, but an arbitrarily determined portion of the economic rent which the State assesses and appropriates. As a matter of practice it is found that the personal proclivities of the settlement officers enter largely into the rate of assessment. One man is apt to take a full 45 or 50 per cent of the net assets, believing it to be his duty to secure to the State the full share which traditional practice assigns to it; whilst another man believes in erring on the side of leniency and by underestimating the assets keeps down his assessment to what he believes can be paid very easily. The tendency to leniency is naturally greater in those districts where there has been considerable economic development and consequent advance in the real economic rent since the last settlement. Here the task of the settlement officer is comparatively easy: in fact he may find himself embarrassed by the necessity of showing the net assets at somewhat less than he finds them actually to be, so that he may not be obliged to assess revenue which would

produce a greater increase than the 33 per cent laid down by the Government of India as the maximum average in a district between one settlement and the next. It is easy to see the difference between settlement operations and the fixation of rents. The settlement officer can incur the odium of those who pay by assessing too heavily; and Government prefers that he should rather sacrifice some revenue than produce a sense of grievance among the zemindar class. On the other hand, in the fixation of rents the Government officer enters as a third party, and when he pleases one party he must almost inevitably displease the other. Hence the argument that the fixation of rent is easy because Government can successfully carry out detailed settlement of land revenue is seen to be due to a superficial view.

There remains an alternative proposal—that instead of establishing a new branch of the executive Government to determine rents by *systematic* operations, it should be left for the courts to decide. Cases for enhancement of rent would come before the district magistrate as in the ordinary course at present and he would fix what he believed to be a fair rent after hearing evidence and after ordering investigation if need be. The volume of business would be over-whelming, however; and if it were to be carried out without inordinate delays additional joint or assistant magistrates would have to be appointed, who would probably tend to specialize in this work. It would be better to follow the analogy of cases relating to irrigation for which a special class of judicial officers has been appointed—the canal deputy magistrates. By specialization we might in a few years have a body of honorable and skilled justices whose experience in the work would enable them to give judgments fixing rents with less delay and greater uniformity than could be attained by any expansion of the ordinary

revenue work of the district magistrate and his assistants. Even in this case, however, the volume of work to be dealt with by these rent courts would be enormous under the conditions prevailing in these Provinces, and it may well be doubted whether this work is not more difficult than any judicial work at present extensively practised. The present procedure in enhancement of occupancy rentals in the Agra Province is hardly a fair comparison, because of the very limited grounds on which enhancements are allowed by law, and are in practice granted. In any case, it appears to me that the addition of an enormous number of rent cases to the already abundant litigation which conditions necessitate, or the Indian cultivator enjoys, would be a social and political disaster. It would need to be justified by the prospect of an enormous economic gain ; and this, as I have already pointed out, is illusory. It may be said in fact that such a system would indefinitely postpone any real progress in agriculture, for the energies and interest of the cultivators would be centred in rent cases rather than in learning to improve their cultivation.

LECTURE VI

THE ENGLISH TENANCY SYSTEM

The present lecture is devoted to a description of the tenancy law of England by way of introduction to a consideration of the principles on which the tenancy laws of the United Provinces might be re-modelled. The English system is particularly worthy of attention, because the landlord and tenant system has been in operation there for a very long period under an improved system of agriculture, and the present law and practice is the result of an accumulation of very lengthy experience, both in estate management and in legislation for the protection of tenants. A long series of Acts for securing compensation to tenants for improvements and regulating ejectment were consolidated and amended in the Agricultural Holdings Act of 1908. Before this can be fully understood, however, it is necessary to be acquainted with the usual terms of the tenancy agreements. The interesting points about these are :—

(1) That the landlord lets a farm for cultivation only in accordance with an approved system of cultivation, and rights over all timber and to dig for clay or sand or stone are reserved to the landlord, with power of entry for removal, but to pay compensation for damage done to tenants' cultivation.

(2) The tenancy is for one year certain commencing 25th March and continuing from year to year until determined by one year's notice to quit which must expire on the 25th of March.

(3) Most farms consist of both arable and pasture land, and it is provided that if the tenant ploughs up grass land a penal rent of about Rs. 500 per acre per annum for the area so ploughed up will be charged.

(4) The tenant agrees to pay an increased rent calculated at 6 per cent per annum on any money expended by the landlord on improvements made with the tenant's consent.

(5) The tenant undertakes to keep all the buildings, drains, fences, etc., in good repair provided that the landlord supplies free of charge all the requisite materials therefor.

(6) The tenant shall haul in his own carts without charge all material required for repairs whether done by himself or the landlord.

(7) The tenant shall not sublet without written consent.

(8) The tenant shall "stock, manage, cultivate, and farm the premises in a good, clean, and husband-like manner, according to the best and most approved mode of husbandry in reference to farms of a like nature ; and shall keep and leave the same in good heart and condition."

(9) The tenant is required to manure the land as specifically directed in a lengthy clause of the agreement in accordance with the quantity of grain and straw sold off the farm, the object being to maintain the soil in as productive a condition as when the tenant entered.

(10) A section specifies how the cultivation is to be carried on in the last year of tenancy if either side has given notice.

(11) The landlord undertakes to keep buildings in repair and insured against fire.

(12) The landlord, or the incoming tenant, shall pay compensation to the out-going tenant for crops, grass,

and seeds sown, for root crops fed to stock within the last year, and for any unconsumed hay and straw.

(13) A valuation is to be made at the end of the tenancy of the amount of compensation to be paid by the landlord, and the referee or valuers shall also determine what sum, if any, ought to be paid to the landlord for any breach by the tenant of the terms of the tenancy or in respect of the condition in which he has left the farm. Every valuation is to be made either by a single referee or by two disinterested persons appointed as valuers one by each party, who choose an umpire who has to be called in, in case they disagree.

This agreement is drawn up on the basis of the prevailing tenancy custom, but, of course, also in accordance with the provisions of the Agricultural Holdings Act (1908) which we may now proceed to examine.

The principal provisions of that Act are : (1) that the tenant must receive twelve months' notice of ejectment (unless he has agreed on entering to six months notice), (2) the right of the tenant to compensation for improvements, (3) the right of the tenant to compensation for unreasonable disturbance, (4) provision for arbitration according to a simple procedure. The provisions as to compensation for tenant's improvements are extremely important and are applicable with but little modification to Indian conditions. The Act divides tenants' improvements into three classes : (1) those for which compensation can be claimed only if constructed after obtaining the written consent of the landlord, for example, buildings, formation of silos and pasture land, irrigation works, improvement of roads and bridges, making of improvements of water courses and wells, permanent fences and fruit gardens, and the reclamation of waste land, (2) improvements which may be effected by the tenant, after having given two months' notice to the landlord.

if the latter has failed to undertake them himself within that time. Drainage works of all kinds come under this heading. (3) Improvements in respect of which neither the consent of the landlord nor notice is required. Examples of the last are : putting lime upon the land, and all kinds of artificial and natural manures. For all these improvements, subject in class (1) to the landlord's consent having been obtained, the tenant on leaving his holding, after having given or received legal notice to quit, can claim compensation for the unexhausted value of the improvement.

Section 8 provides that when the tenancy is a yearly one a tenant who has remained for two or more years shall not on quitting his holding be deprived of his right to claim compensation by reason only that the improvements were not made during the tenancy on the determination of which he quits the holding—in other words, so long as he is in actual cultivating occupation of the holding, the tenancy is considered to be continuous. However, the tenant is not entitled to compensation in respect of improvements other than manuring begun after he has given or received notice to quit, unless he has given notice to the landlord of this improvement prior to the giving or receiving of the notice to quit. The tenant is also entitled to compensation for damage by game preserved by the landlord ; but the most important provision for our purposes is that of Section 11 giving compensation for unreasonable disturbance. This provides that if the landlord, without sufficient cause, “and for reasons inconsistent with good estate management” gives notice to quit, or having been requested at least one year in advance of the expiration of the tenancy refuses to grant a renewal, or if the landlord demands an increase of rent as the result of improvements executed by the tenant, and such demand results in the tenant quitting the holding, the tenant may demand a compensation for disturbance not

exceeding the cost of the sale or removal of his household goods, his implements of husbandry, produce and farm stock.

Section 13 prescribes the method of arbitration, which is to be by a single arbitrator under rules set out in the Second Schedule to the Act. The main features of the arbitration provisions are that the arbitrator is appointed by agreement between the parties, or in default of agreement is to be nominated by the Board of Agriculture. He may examine witnesses on oath if he thinks fit. Arbitration will be final and binding, but the arbitrator may state a case for the opinion of the county court on any question of law. In regard to vegetable and fruit gardens (market gardens) special provisions for compensation are made for particular improvements set out in the Third Schedule. The remaining provisions of the Act are chiefly formal or of minor importance for our purposes; but it is interesting to notice that on many occasions the Board of Agriculture may be appealed to intervene. The giving of this power to a department of Government which is concerned with the promotion of agriculture is one of the important features of the Act.

Long leases of agricultural land are not often given in England; but on the best managed estates, although the tenant legally holds from year to year, he has in practice a very fair security of tenure, provided he is a good tenant and keeps his farm in a good working condition. In any case he is now well protected by the law as regards outlay which he makes on improvements; but there are some landlords who refuse permission for making improvements of the first class.

It is important to notice that the English tenancy system, with its useful provisions for compensation to tenants, has called into existence a class of professional valuers whose

principal business is to visit farms where tenants are quitting and to make valuations either on behalf of the landlord or the tenant, or to be called in as arbitrators. These men have usually had the training of an estate agent, and have afterwards specialized in this valuation work.

LECTURE VII

TENANCY REFORM IN THE UNITED PROVINCES.

In the early lectures an attempt was made to survey the economic forces which affect the tenancy problem and how they might be expected to apply under the prevailing conditions. We then gained some acquaintance with the English law and practice relating to landlord and tenant; and in the last lecture I dealt briefly and critically with some of the proposals which have been put forward for reform of the tenancy laws in these Provinces. Having always in view the good of the whole community and its advancement by making agriculture more productive, we saw that any extension of occupancy rights or any fixed tenure or long lease system would be likely to hinder progress, and must be condemned on that ground. A proposal to fix rents either by a branch of the executive Government or by judicial procedure was found to involve very serious difficulties, especially if it were sought to fix rents at less than the economic rent of the land with a view to benefitting the tenants by interfering with the competitive distribution of wealth.

It remains for me in the present lecture to enter upon the most difficult part of the task, which I have set myself: namely, to indicate the lines along which reforms generally admitted to be necessary, should be directed. I do not pretend to be able to give you in this short course of lectures anything like a complete solution of the tenancy problems of these Provinces. I cannot even say that I am satisfied that my present opinions as regards the desirability and

practicability of the various suggestions which I shall shortly present to you are in all respects final. There is always the possibility that a further investigation of facts and a more complete analysis of all the economic and human factors entering into the problems, may lead to some modification of opinion. For this reason I shall endeavor to give as fully as possible the reasons which lead me to put forward particular suggestions.

Recognizing the necessary limitations as to the finality of my proposals, they may yet be of value as indicating certain lines upon which further investigation and discussion may proceed. I do not think it is appropriate, even if there were time, that I should attempt in these lectures to work out in detail the specific application of the principles which I shall lay down.

It will be convenient to group the proposals which I have to make into four classes, dealing in the first with the law which should be universally applicable to all tenants-at-will and sub-tenants, in other words applicable to all those not protected by a lease or statutory right and who should be entitled, I propose, to hold as yearly tenants. In the second class will come all the questions relating to the rights of lessees and occupancy tenants and others having a subproprietary right, treated in this application to the existing laws of these Provinces. In the third class I shall discuss the specific measures of protection of tenants of all classes which should be provided by law, and in the fourth class will come proposals for the administrative measures for the protection of tenants.

Distinction of Holdings according to Size

No proposal which I could make would be valid, however, for agricultural holdings of all sizes and kinds. Their variety is too great for it to be possible to bring them under one rule of law without injuring the interests of one class

or another. It will be necessary, therefore, in several cases to distinguish holdings according to their size; and I find that holdings naturally fall into three classes, which play a different part in rural economy. The largest class is that of medium-sized holdings varying usually from 5 up to 50 acres in area, though in some districts the upper limit would be more like 100 acres. These are the holdings on which a cultivator normally supports himself entirely by agriculture, or at any rate in which it is the principal occupation of himself and his family. On the larger holdings one or two laborers will be employed and at times more. The traditional methods of cultivation and old-fashioned implements are employed.

The other two classes consist of holdings which on the one hand are larger and on the other hand are smaller than this big class of the ordinary cultivators' holdings. The larger holdings are generally those which would exceed from 50 to 100 acres in different districts and would each be cultivated as a single farm by a man with some knowledge of modern methods of farming and possessing some capital which would be invested in modern implements and in improved live stock. On the other hand, the smallest holdings varying from half an acre (less than a bigha) upwards are generally cultivated by artisans, laborers or other persons having some other occupation as their principal source of income. This class of tenant is not dependent for his livelihood upon the produce of his cultivation; yet it is very useful to him to have the opportunity of growing either some commercial crop, or grain or garden produce for his own consumption. He is put in a somewhat more independent position by having the possibility of making something from cultivation; and the health of his family is promoted when he can raise his own fruit and vegetables. In England these small-plots of land leased to persons for cultivation in their spare time are called "allotments".

I think it is clear that all three classes of holdings are absolutely necessary to the rural economy of India. The great mass of the cultivators will continue to cultivate medium-sized holdings for many generations; though it may be held that the holdings should not only be consolidated, but that their average size should be somewhat increased. Yet as a class the medium-sized holdings must remain, and will probably, in most districts, form the greater part of the cultivable area. It is equally necessary to have the small holdings or allotments of less than 5 acres available in all villages and particularly around the small towns and in the suburbs of the larger towns. It is obvious that the proper place for these small holdings to be located is as near as possible to the *abadi*; and it would be a great advantage if all such small holdings lying within a mauza were concentrated in one place. When scattered amongst the medium-sized holdings, they will form an obstacle to the improvement of cultivation by the professional cultivators; and scattering of small holdings at a distance from the *abadi* greatly reduces their value to the artisans and laborers who cultivate them. I would therefore discourage the existence of such small holdings outside a specified area close to the *abadi* in each village; and this could be done by refusing to allow occupancy rights or automatic leases or any other statutory provisions to apply to such small holdings outside the prescribed area. The only rights which would attach to them when situated in any part of a mauza would be those accruing under the general law applying to all tenants-at-will.*

*There may appear to be some confusion here in the use of the terms "tenant-at-will" and "yearly tenant". The explanation is that, according to my proposal, no person could in fact remain a tenant-at-will, for every person admitted to cultivating occupation of land at all, whether directly by the landlord or indirectly as a sub-tenant, would automatically obtain the status of a yearly tenant, and could be ejected only after twelve months' notice, except for non-payment of rent. In the sequel, therefore,

The large holdings should not be restricted in any way as to situation; but their tenants, being generally men of some education and business experience, will be less in need of protection than the general class of cultivators. I would suggest that the statutory privileges, other than the general law relating to the yearly tenants, should not extend to them, so that the tenants of holdings above some limit of between 50 and 100 acres should not become occupancy tenants, nor become statutory tenants in Oudh. They would of course be free to enter into any contracts with the landowners; and many of the landlords would probably be prepared to grant leases on terms which would be negotiated separately in each case. It will be seen that if my proposal for the protection of tenants-at-will should be adopted the tenants of large holdings would have ample inducement to carry on their cultivation by improved methods.

The law relating to yearly tenants would apply also to every kind of sub-tenant and to every person in cultivating occupation of land who has not got some superior right. In reality there will be no such thing as a tenant-at-will. I propose that the analogy of the English law be followed, so as to modify the existing practice in a manner favorable to the cultivator. It is necessary to provide for the yearly tenant: (1) ample notice before ejection, (2) the right to compensation for improvements, (3) the right to compensation for disturbance, and (4) a standard form of yearly agreement, clearly defining his rights and obligations.

(1) The period of notice should not be less than twelve months and it should terminate at the end of the agricultural year which might be taken in these Provinces to be any date between 15th of May and 30th of June. The notice

where the term "tenant-at-will" is used it must be understood to mean the class of tenant subject in greatest degree to the landlord's will; and such class, if my proposals were adopted, would be the yearly tenant.

of ejection should be served by an officer of the Court, the notice being duly entered in the Court Register together with proof of service.

(2) The compensation for improvements should follow the lines of the English law described in the last chapter. It would be necessary to divide improvements into three classes and I would suggest the following as a suitable classification:—

I. Improvements for which compensation can be claimed only if executed after the landlord's written consent has been obtained:—

- (1) Masonry wells exceeding Rs. 1,000 in cost.
- (2) Tanks, bunds, irrigation channels and works of all kinds, including pumping schemes.
- (3) Farm buildings of all kinds.
- (4) Grain pits and silos.
- (5) Fences.

II. Improvements for which compensation may be claimed if they have not been undertaken by the landlord within three months after the tenant has given notice of his intention to make the improvement:—

- (1) Masonry wells costing less than Rs. 1,000.
- (2) Drainage works.

III. Improvements for which no notice is required:—

- (1) Wells without masonry.
- (2) Spreading and ploughing in lime, ash, or any other beneficial substance on the land.
- (3) Manuring with any natural or artificial manure beneficial to the ordinary crops of the district.

It may be questioned whether granting to tenants the right to compensation for improvements of the first class will be of much advantage to them if they have to obtain the landlord's consent before the improvement is undertaken in order that the claim for compensation may be valid. The

existing tenancy acts in the Provinces of Agra and Oudh both provide for compensation for improvements when the tenant has obtained the landlord's consent; but it is said that this is almost a dead letter because landlords are so unwilling to grant permission. Their objection to granting permission appears to be based mainly upon the fact that by granting permission they would be creating for themselves a contingent liability, which might have to be met almost any year. The landlord prefers to keep himself free from such liabilities, and to make improvements with his own capital when available, and when he considers them really necessary. His view of what is "necessary" does not, of course, usually correspond with the tenant's desire. Another objection which is raised by landlords is that if they grant such permission to make improvements the tenants become more independent. If one has permission, others must have it; and they know that the landlord will not be in a position financially to pay them all out at the same time.

On the other hand, it is impossible to give the tenants the right to make permanent improvements without the landlord's consent and the right to claim compensation, except to a very limited extent; especially if, as in the English law, the tenant may claim such compensation if he himself quits the holding of his own free will after one year's notice. The provision that the tenant may make a permanent improvement after obtaining an order of the Court without consent of the landlord exists in both the Tenancy Acts; but not much use is made of it, as the tenant is afraid that he would be making an enemy of his landlord and his agents. Yet the provision that improvements may be made by order of the Court, or of some Government officer, should stand. As regards the payment of compensation when the tenant himself gives notice, I would suggest that it would not be an unfair arrangement if

he were then entitled to claim three-fourths of the cost of the improvement.

The provision of compensation for the unexhausted value of lime, manures, etc., which the tenants may have applied to the land would be a new provision in the Indian law; and it would have, I am sure, a very salutary effect in inducing tenants to use these means of maintaining the soil in a fully productive condition.

(3) The grant of compensation for disturbance would be a novelty in Indian tenancy law, as it was a novelty when introduced in England by the Agricultural Holdings Act of 1908. It is obviously expedient as well as just that the tenant should receive a refund of the monetary loss which he must necessarily suffer on being ejected from his holding, provided that the ejectment is not the result of some wrongdoing on his part. Obviously, if the tenant fails to pay his rent regularly when others can do so; if he is contumacious and raises unwarranted disputes with the agent or his *zilladars*, or with neighboring tenants; if he encroaches on his neighbor's land or frequently injures the cultivation of neighbors by allowing weeds to spread, or his cattle to stray—in these cases he is not a desirable tenant, and he does not deserve compensation for disturbance if the landlord should decide to eject him. Ejectment on account of such acts may be considered to be in accordance with good estate management. The provision I suggest is that if the landlord ejects a tenant for any reason which he considers to be in accordance with good estate management, he may apply to the Court to dispense with the compensation for disturbance; and doubtless, if the Court were satisfied as to the reason for ejectment, the tenant would lose his compensation for disturbance.

As regards the amount of compensation for disturbance, it must be estimated on the presumed loss which the cultivator

will suffer by being ejected. In the first place he may lose something through the time necessarily taken up after receiving the notice in searching for another holding. When the time comes for moving he has in many cases to convey his family and personal belongings to another village, also his live stock and agricultural implements, seed, etc. Thirdly, in the first year of the cultivation of a new holding he is necessarily at a disadvantage through not being fully acquainted with the soil, and his cultivation will not be so profitable as if he had remained another year on the old holding.

When the competition for land becomes severe, it is impossible to maintain the old legal fiction that the tenant and landlord meet on equal terms and enter into a free contract. The tenant undoubtedly needs some protection; but it seems to me that in the interests of progressive agriculture this protection should not extend to giving the tenant any form of proprietary rights, but should be limited merely to securing to him the full and regular fruits of his labor. Theoretically the position should be that, even if he should suffer a capricious ejectment by his landlord, he would not thereby be put to a monetary loss.

We are not, however, much nearer to settling the amount of compensation for disturbance; obviously it ought to be settled separately in every case, and this is the practice under the English Law. In India we have not yet a sufficient number of trustworthy men to act as valuers; and consequently it would be quite impracticable to settle the compensation for disturbance separately in each case. The important thing is to introduce the principle; and after it has become well-recognized some more refined method of fixing it may be evolved. For the present I can only suggest that the compensation for disturbance be fixed at some proportion of the annual rental, possibly, say, 20 per cent at

the least. This will admittedly be insufficient in many cases ; but it will also be amply sufficient in a large number of cases in which the tenant merely shifts to another holding in the same village. The effect upon the landlord will obviously be to discourage ejectment, unless there be some good reason therefor—either that the tenant commits wrongful acts of the kind specified above or the landlord considers the rent of the holding to be much lower than he could get from some other tenant. We must remember that we are dealing with tenants-at-will, or perhaps I ought to say yearly tenants because in reality I propose that all tenants-at-will should automatically have the status of yearly tenants—and in the case of tenants-at-will it is generally admitted that the landlord has a right to raise the rent to such a figure as would be paid readily by other applicants.

The question of the level of rents for yearly tenants is, indeed, one which cannot be settled by legislation. It is a question of good estate management. It is a well-understood principle amongst good landlords that they should not try to squeeze the uttermost rent out of each holding, because the highest figure which anybody will bid is in many cases really a "fictitious rent", that is to say, one which is above the economic rent. When the rent paid by the tenant is fictitious, or above the economic level, it means that he can pay it only in 'one of four ways:—(1) by reducing his standard of living, which will generally impair the health of himself and his family, (2) out of some extraneous form of income, such as the earnings of his sons who may have migrated to work at industrials centres, (3) by drawing on his capital, either by selling his goods or getting into debt, or (4) by exhausting the soil of his holding by successive crops of wheat or sugar-cane without manuring or rotation. In all of these cases the tenant will get into difficulties after three or four years, and, unless prices happen to rise, will

be forced to give up his holding, or the landlord will have to forego the arrears and let him stay on at a lower rent.

Good landlords who understand their business and conduct it for the continued prosperity of their estates are unanimous in the opinion that it does not pay to endeavor to raise rents above the economic level or indeed above a figure slightly below the economic rent. If the landlord willingly foregoes a little even of the economic rent which may arise a few years after the tenant has entered a holding, he thereby gives the tenant encouragement to improve his cultivation. The landlord will get a reputation for being of a fine and liberal disposition, and he will never be in want of good tenants who will cultivate carefully and pay their rent regularly.

It is obvious, however, that in getting his estate settled with good tenants of the character just described the landlord must be free from time to time to eject the most unsatisfactory tenants. By a constant process of ejecting the worst tenants, and by the consciousness of liability to ejection which the other tenants will experience, the whole estate may in time be brought to be tenanted by industrious peasants who understand and practise good agriculture and are generally well-behaved.

(4) The form in which yearly agreements between landlord and tenant are to be drawn up ought to receive attention. It is obvious that the agreement must name the fields which are let and state their area and define the rent to be paid. The rent should be payable in two half-yearly instalments in December or January and in May or June, the second instalment being larger than the first in a proportion according with local custom. If the tenant be illiterate, the agreement should be read over to him by the patwari and, when he understands and agrees to it, he should affix his thumb impression. The agreement should

be so drawn that it runs for one year, and thereafter from year to year until 12 months' notice to terminate it has been given by either party. Provided there be no actual interval exceeding three months in the occupation of the land the tenancy thus held from year to year on one agreement is to be considered continuous, and compensation for improvements made by the tenant will be deemed to be due although made during any year of such continuous occupation.

As has been pointed out in the preceding chapter, English tenancy agreements contain elaborate provisions for securing the proper cultivation of the holding and for preventing the exhaustion of the soil. It is probably too early to do much in this direction in India as yet; but it should be practicable for landlords in some districts to insert a provision in the agreement requiring the tenant to follow a certain rotation of crops and to apply green manure to the holding, a penalty of enhanced rent being inserted if this be not done. Landlords would soon find that they could only exercise compulsion in this matter where the manuring when properly done actually proves generally beneficial to the cultivation, and the tenant would not object to this provision if he intended remaining in occupation of his holding. I think a little compulsion of this kind would be very useful in teaching cultivators the better management of the soil.*

Effects of the Yearly Tenancy System

For the purpose of gaining a clear comprehension of my proposals it is now necessary to consider what would be the economic effects, if the system of yearly tenancies which I have just outlined were to be made applicable to all land. Let us assume for a moment something which I am

* Obviously provisions for manuring need not usually be enforced in the *gohari* or *gohari* land; though ultimately the present advantage of the *gohari* might diminish through a better distribution of the available manure and water over the whole of the village land.

certainly not going to propose, namely, that all the occupancy and lease-hold rights in these Provinces were abolished: and that in substitution therefor all tenants would in future hold land on the system of the yearly tenancies above outlined. The success of the system would depend very much upon the attitude of the landlords. If they continued in a conservative fashion keeping down their personal expenditure and therefore their demands from their tenants, it would be found to work quite satisfactorily. The incoming tenant would certainly pay to the landlord the compensation for improvements which the landlord might have to pay to the out-going tenant. Assuming him to be a good landlord he would not very often have to pay compensation for disturbance because in cases where it was manifestly right to eject the tenant he would apply to the court to avoid the compensation, and this would be granted immediately if he had a clear case. Ejections for other causes would not be frequent because, if the landlord were to seek to raise rents only when it was reasonable to do so, the tenant, being aware that his rent really was below the market value, would agree voluntarily to a reasonable enhancement rather than be ejected.

Landlords who, besides managing their estates in this conservative manner, were anxious to improve the agriculture of their tenants would have every inducement to do so. They would have freedom to select the best tenants by gradually ejecting those who failed to adopt ordinary precautions in cultivation and simple improvements stipulated for in the agreements. They could distribute good seed to their tenants, and provide them with better cattle by maintaining a stud farm in which selected animals were bred. They could invest money in wells and other improvements. Knowing the advantages of being tenants of such an estate there would be competition always amongst tenants to obtain holdings:

and the rents could be raised to a reasonable extent so as to give the landlord a fair return on his capital and for his organizing work and personal supervision.

This pre-supposes conservative* and enlightened landlords. There are sure to be many who are neither conservative nor enlightened, but will seek, as they do at present, to extract the highest income they can from the estate with the least trouble on their part. If the landlord abdicates his proper functions, the welfare of the community demands that he should at least have a liberal-minded and enlightened agent to represent him on the estate. The agent and his subordinates must in the first place be honest; secondly they must understand the principles of good estate management, and the bad economy which ultimately results from raising rents to a fictitious level. They must understand how the land deteriorates, must distinguish between good and bad cultivators, and must generally work for the future benefit and prosperity of the estate. Assuming that such agents are available, the system of yearly tenancies will be workable; provided such agents are employed wherever the landlord himself does not personally supervise the estate. Without doubt it should be a duty of Government to provide the means of educating honest, reliable and intelligent men as agents and their subordinates; and when a supply is available to insist that they be employed. Wherever such provisions failed to secure the proper management of an estate, Government should itself take over control, charging a little more than the full cost of the management, by way of a tax or penalty on the landlord for his want of reasonable attention to the duties of his position.

Let us consider what would be the aspect of the yearly tenancy system from the point of view of the tenant. To

* The word "conservative" is used here in its original sense; and applied to landlords it means one who "conserves"—that is keeps and preserves his estate in good order, accumulates and invests capital therein, and does not live beyond his income.

the tenant the two questions which bulk largest are the amount of rent he has to pay and the question of security. Every man likes to make a good bargain and profit by it. The lucky prospector who can take out a mining license of valuable property at a ridiculously low figure may by a few months' work make himself passing rich for the rest of his life. We are all out for these bargains ; and so is the tenant. If he can obtain occupancy rights he feels secure in the enjoyment of profits sufficient to maintain his family, and probably without the necessity of such continual hard work as might be necessary if he should have to pay from time to time an enhanced rental. Whilst, as I say, every tenant likes to make a good bargain, I think the average tenant is not averse from paying what may be considered a fair rental : in other words, if he is a yearly tenant, he will not feel that he is being dealt with unjustly if his rent is enhanced to a reasonable extent at a time when the profits of cultivation have increased or when he has received any benefit from the landlord. If the enhancement of rent of a yearly tenant is such as not greatly to exceed the average then payable, which will be the case if all landlords follow the same practice and make general enhancements or reduction of rent at approximately the same time, the tenant will have little real cause for complaint. The trouble is that landlords at present act without agreement and even without consultation, so that there are marked differences between the enhancements made on neighboring estates, producing a sense of injustice in those tenants who have suffered from considerable enhancement whilst seeing their neighbors get off much more lightly.

Suggestions for Immediate Changes in Agra Province

I am of opinion that, if we had a body of enlightened landlords devoting themselves to the development of agriculture on their estates, the system of yearly tenancies with the various kinds of compensation above described could be introduced with a view to replacing gradually all other forms

of tenant rights ; and that it would be in the interest of the country so to do. At the present time, however, this is obviously impossible. It would be immediately practicable, however, to introduce the yearly tenancy system such as I have described for small holdings not falling within the reserved area, and for large holdings exceeding a limit fixed at between 50 and 100 acres. This would mean that in an amending act it would be provided that occupancy rights could not in future be acquired in those scattered small holdings or in new large holdings above that limit.

I think, however, that it is desirable to go further than this at an early date in the direction of giving landlords bigger freedom for the development of their estates. For this reason I would make it lawful for a zemindar to buy out the occupancy rights of any of his tenants or to force them to accept other land in exchange, with suitable compensation if necessary, for any reason consistent with good estate management. Thus, if a zemindar proposes to make a pukka well, and proposes to charge extra rent at the rate of 8 per cent per annum on the cost of all lands lying within the area which it can water, he should not be prevented by the refusal of an occupancy tenant to pay this additional rental. The mere fact that such a tenant could be bought out or shifted to other land, would be a means of ensuring a reasonable attitude on the part of occupancy tenants to proposed improvements, which will really work even more in their own interest than in that of the landlord. Furthermore, it is very important that no zemindar who wishes to undertake his own cultivation according to improved methods should be prevented from resuming possession of his own land by the existence of scattered fields rented to occupancy tenants. In such cases occupancy tenants do sometimes agree voluntarily to accept other fields in exchange when convinced that they will not be losers thereby ; but I feel sure it will

be in the general interest to allow the landlord the right of forcing the removal of occupancy tenants in such cases, subject to proper compensation. The purchase price for buying in occupancy rights should be calculated at about twenty times the difference between the rent payable by the occupancy tenant and the full rent which the same land would be worth if let to a yearly tenant. Such cases must be decided by a Court; and the Court must take into consideration the purpose of the landlord's resumption and consider whether he is likely to be able to fulfil that purpose. A landlord might, for example, seek to resume a considerable area for the purposes of planting sugar-cane, and erecting a factory: but this might be only an idea, and he might have no real chance of raising the necessary capital to carry the scheme through. He should, therefore, be required to give reasons for believing that he can carry out his purpose; and if these are convincing, he should certainly have the right of buying out the occupancy rights.

The question of occupancy rights is really very similar to that of leases. If the occupancy rights could be abolished when needed with proper compensation, they would be allowed to accrue more freely than at present. When resumption by the landlord had thus become possible there would be no objection to allowing a tenant to purchase occupancy rights after any length of tenure. The question of the purchase price which had been paid by the tenant for his occupancy right would naturally be taken into consideration in determining the compensation to be paid to him if the landlord should want to buy them back. There is no objection whatever to making occupancy rights more freely obtainable, so long they can be more freely abolished. The whole question ultimately resolves itself into the determination of the fair compensation for tenants' improvements and for any interest with the tenant has in the land, such as a long

lease or occupancy rights, which has monetary value. Looking at the matter from the broadest point of view, we see that so long as the law and prevailing practice secure to each party the respective property in material improvements or in rights which that party has created, the interest of the country is served best by having the greatest flexibility in the permissible conditions of contract and legal right as between the two parties.

Immediate Changes in Oudh

The existing law in Oudh is a system of automatic leases with a restricted rate of enhancement of rent. When waste land is being let for the first time, or land which has been out of cultivation, or otherwise in the landlord's possession, is let to a tenant, the two parties are free to agree upon any rental; but excepting on his *sir* land the landlord is obliged to let on a lease for not less than seven years. The tenant can be ejected by order of the Court at any time for arrears of rent, but otherwise only by a notice under Section 55 served through the Court twelve months before the expiration of the lease. At the expiration of seven years the landlord may re-let the land for another seven years to the same tenant, but the rent may not be enhanced by more than one anna in the rupee. If the tenant has been ejected the land cannot be let to another tenant at any rent higher by more than one anna in the rupee than the rent paid by the previous tenant. If the letter of the law be strictly observed, therefore, it is impossible for the landlord to enhance his rent by more than one anna in the rupee in seven years (that is 0·86 per cent per annum) however much he changes his tenants. The provision that the rent cannot be enhanced more for a new tenant than for re-letting to an old tenant was inserted in order to discourage ejectments being made for the purpose of obtaining enhancements of rent.

During the past ten years the full annual rental value of land has risen very considerably in certain parts of Oudh, perhaps partly owing to the effects of the improved communications, but mainly on account of the general rise of prices. Thus the full rental value of the land has risen until in some places it greatly exceeds the statutory maximum rental payable under the lease system. The inevitable result has been that landlords who wish to increase their income to the maximum have adopted the practice of re-letting land to the person who will pay the highest nazrana or premium on admission. Some landlords go further than this. In the belief that when the next settlement, due about twelve years hence, comes to be made the revenue will be assessed on the rent rolls, some landlords are avoiding enhancements of rent and are seeking to obtain the whole of the enhanced annual value of the land in the form of nazrana. Thus on re-letting a holding a purely nominal enhancement of one pie in the rupee may be made, which is only one-twelfth of the legal enhancement, but a heavy nazrana is charged. Although the exaction of nazrana is obviously contrary to the spirit of the Oudh Rent Act it has been held by the courts that it is not illegal.

The Oudh landlords, or some of them, have other sources of income besides rent and nazrana charged on new leases. There is the local custom by which the Talukdar receives in addition to his cash rents certain offerings in kind, such as a maund of grain or a load of straw or a pot of *gur* (sugar-cane juice) at the harvest time each year. There has been some grumbling amongst tenants because larger loads of straw, and larger pots of juice are now exacted than formerly. Then there is the *begar* or compulsory labor for the landlord's business which the tenant is obliged to render for a merely nominal payment. In some cases the landlord has the right to the occasional use of the tenant's bullock

carts and animals and his plough as well as to the man's own services. The latter are remunerated at the very old rate of one anna per day, whereas the average rate of wages for agricultural labor now is six annas per day. A few landlords have created much disaffection amongst their tenants by the imposition of arbitrary nazrana at any time when the landlords happened to require some money. It is an old-standing Indian custom that presents known as *salami* should be offered to a rajah or chief when he goes on tour visiting his villages : and officers of all grades in the Moghul Empire received such presents. A traditional custom has been degraded and commercialized until it has become a serious oppression on the estates of some landowners. If the landlord wants to buy an elephant a levy is made from all tenants in proportion to rent. In recent years he generally buys a motor-car, and this is provided in similar manner. The tenants speak of these exactions as *hathiana* and *motorana*. In some cases subscriptions to War loans were exacted from the tenants without their obtaining credit for their payments.

The last mentioned arbitrary exactions, the *hathiana*, *motorana*, etc., should be prohibited by law and Government should make it well-known in the villages that payments not stipulated in the lease are illegal. It is probable that one result of the non-co-operation movement will be that the tenants in future will combine and refuse to pay the illegal exactions. The Kisan Sabhas, or peasant societies, which are springing up in many places will, if they survive the present political movement, exercise a useful function in the protection of the tenants against exactions by the landlords or their agents and subordinates, which are sanctioned neither by the law nor by custom. As regards the *begar*, some of the smaller landlords who do their own cultivation are apt to abuse this privilege, thereby creating some

unrest. It should be made possible for the tenants to apply to the Court to have the obligation to render *begar* commuted into a small annual payment to be added to the rent. The annual presents in kind of grain, straw, etc., may be left to be regulated by local custom; though where they are a source of friction it should be made competent for the Court to commute them into a small money payment.

We have now to consider the rent and the nazrana payable on the grant of a lease. These two are interrelated because nazrana represents economically a payment of rent in advance. Thus supposing that the full rental value of a holding is Rs. 200 per annum and the holding is let for Rs. 160, nazrana may be calculated as the present value of Rs. 40 per annum for seven years, discounted, say, at the rate of 10 per cent or more per annum, as interest rules high in Indian agriculture. The way in which the landlord puts the matter to the tenant was explained to me by a landlord somewhat as follows. After having given the tenant the notice of ejectment the landlord will call him and say "your rent is now Rs. 160 per annum, but I can let your holding to any new tenant at Rs. 225 per annum. I intend to increase your rent only a little to Rs. 165 per annum, so I shall be losing Rs. 60 per annum, if I let it to you at that rate. In all I shall lose Rs. 420 in the seven years. How much will you pay me in order that you may have the land at this low rent? Other peasants are offering me Rs. 300 and more". Finally perhaps he allows the existing tenant to retain the holding on payment of Rs. 250. If the tenant has not got this, he must go to the mahajan to borrow, and he may have to pay at least 24 per cent per annum interest, making Rs. 60 per annum.

It is obvious that this system is economically unsound. It uses up all the tenant's free capital—just that money which he ought to put into better cattle, or implements or

into the improvement of his holding ; and if he has but little capital, he must borrow the whole or part of the premium. The tenant would in fact be better off if he paid an increased rental for the whole seven years amounting to 15 or even 20 per cent on the amount of the premium, and so would the landlord.

The problem of abolishing the nazrana exacted by many of the Talukdars on admission to a new lease is one of extreme difficulty. It can only be entirely abolished by removing the occasion for its payment—in other words, by prohibiting ejections. Government has in fact already taken this course as a temporary measure by an administrative order allowing ejections to be made only with the sanction of the district magistrate and for serious reasons. If this were followed as a permanent policy it would practically mean the grant of fixity of tenure to all existing tenants subject to their paying their rent and not being guilty of gross misbehaviour.

Such fixity of tenure is the very last thing which ought to be granted, having in view the principles explained in preceding chapters, and especially the progress of agriculture. The search for an alternative measure of preventing nazrana cannot, I think, be completely successful. So long as the rent proposed by the landlord is below the economic rent and so long as there is competition of tenants to obtain land (which presumption is strictly speaking involved in the former) there is bound to be the opportunity for the landlord to exact a premium. It is in the interest of both parties—the landlord and the proposed tenant who desires to get the land—that a premium be paid if the right of admission is granted to the highest bidder. The interest of both parties being alike makes it impossible to enforce any legal prohibition of nazrana.

Personally, I am disposed to favor the gradual abolition

of the legal restriction on enhancement of rents in Oudh, so that in the course of, say, 20 or 30 years or more the whole of the land would come to be held on yearly tenancies. This could be permitted, however, only in so far as Talukdars and zamindars prove themselves to be good landlords and to be conservative in their demands for rent. The protection of the tenant must remain for many years.

As the abolition of the landlord's right of ejectment is in my opinion highly undesirable, the only alternative is to provide the tenant with compensation when he is ejected for no fault of his own. The Oudh statutory tenant on being ejected at the end of his lease should be entitled not only to compensation for disturbance, but also to a further compensation for loss of prospective profits. The equity of compensation for loss of prospective profits arises from the spirit, if not from the letter, of the Oudh Rent Act, which was certainly designed with the intention of giving the tenant the benefit of the option of continuing on his holding with a new lease for a further period of seven years at an enhancement not exceeding one anna in the rupee. It must have been realised when the Act was passed that this enhancement would be often less than the increase of the full rental value of the land, and it was definitely intended that the sitting tenant should enjoy the benefit of the profits arising from obtaining a renewal of his lease at less than the full competition rent. The compensation for loss of profits ought theoretically to be calculated at the present value of the difference between the full rental value and the maximum legal rent after enhancement, but this present value should be calculated by discounting at a high rate of interest—at least 12 or 15 per cent per annum, the latter being the rate which most co-operative credit societies are charging to cultivators.

It might be worth while making an experiment in one

of the most advanced districts as to whether the calculation of the compensation for loss of profits could be actually ascertained on this basis by means of a small local arbitration court, the landlord having two representatives and the peasants two representatives, and the Tahsildar or other Government officer acting as Chairman. I am afraid there would be too much work for these courts, and that they would need expert advice, and to obtain honest advisers would be rather expensive.

So far as I can see at present, therefore, the compensation for loss of profits would be more conveniently settled for the present either by the courts or by a special Government officer. The law might, however, lay down that the minimum compensation for loss of profits should be 30 per cent of the annual rental, and the maximum 100 per cent. The field of disputes between the two parties would thus be strictly limited and in most cases the compensation would be settled by agreement. As in the case of compensation for disturbance the landlord could, of course, apply to the court to dispense with compensation for loss of profits on the ground the tenant was being ejected for reasons consistent with good estate management.

The effect of providing compensation for disturbance and for loss of profits on the two parties concerned would be as follows. The landlord who desired to eject the tenant merely for the sake of admitting another tenant and exacting nazrana, would find himself faced with the necessity of paying the court-fee equal to half the annual rental but not exceeding Rs. 25 and compensation for disturbance and loss of profits amounting possibly to more than the whole of one year's rental. If the holding were rented at Rs. 50 he might have to pay Rs. 85 altogether and could not pay less than Rs. 50. If the rent of the holding were Rs. 100 he might have to pay Rs. 145 and could not pay less

than Rs. 75. In these cases the out-going tenant would receive Rs. 25 less than the landlord paid. The heavy court-fee on ejectment was prescribed by the law with a view to discouraging ejectments; but through being limited to Rs. 25 it failed to have this effect. In equity, instead of merely penalizing the landlord, the money should be paid to the outgoing tenant. It may be suggested that the court-fee be reduced to Rs. 5 and that a fixed amount of Rs. 20 be added to the compensation for loss of profits payable to the outgoing tenant. The tenant who had received notice of ejectment should be entitled to retain the last half-yearly instalment of rent due from him, which amount would be credited to the landlord as part payment of the compensation. This would leave the tenant with a certain amount of money in hand which would be useful in case of any delay which might arise in paying the tenant his compensation as the result of dispute. This would also tend to prevent the landlord from making an application to the court to dispense with the compensation on the ground of the tenant being undesirable. The landlord ought to make this claim immediately after filing his ejectment notice so that the tenant should receive good notice of the right of withholding the last half-yearly payment of his rent having been lost by an adverse decision of the court.

I do not claim that the institution of this system of compensation would entirely abolish the nazrana, but it would certainly go a long way towards reducing it by making it less profitable for landlords and it would remove the tenant's sense of grievance.

A further measure of reform which would tend to reduce the amount of nazrana on certain estates would be a revision of the methods of assessing land revenue, together with a public announcement that such changes would

be introduced at the next settlement of Oudh. I have already explained that some landlords refrain from enhancing their rents by more than a purely nominal amount, and charge nazrana instead, in the belief that by thus keeping the rent-roll low the estate will be assessed to revenue at a lower rate in the same proportion at the next settlement. In theory the settlement officer is expected to settle the revenue at about 45 per cent of the net assets of the land. The net assets mean the whole produce of the land less the cost of cultivation, including the living expenses of the cultivator and his family at the ordinary standard of living. The "net assets" is in reality the economic rent. The actual rent may be either below or above the economic rent. It is below when a conservative landlord does not care to press his tenants to pay the utmost rent; and it is also below when nazrana is charged on admission to a lease. The rents of some holdings, particularly small holdings, are sometimes above the economic rent when a large part of the income of the family is derived from some non-agricultural occupation or from remittances by family members who have migrated to industrial centres. The family clings to the holding in spite of enhanced rent, because of a sentimental connection with the village and the social status the holding of land confers. I believe, however, that much the larger area is rented below the economic rent, and only a small area above it.

In zemindari tracts the settlement officers have been permitted to regard the rents actually paid as a fairly close indication of the net assets of the land, and as being sufficiently close to be taken as the principal evidence on which the assessment is to be based. It would have a beneficial effect if this practice were discontinued and settlement officers were instructed to inquire for themselves as to the real net assets of the land by ascertaining its total

produce and deducting therefrom the estimated cost of cultivation. Local enquiries will generally enable these estimates to be made fairly closely though care should be taken that a normal price level is assumed in estimating the gross money produce. I anticipate, in the case of many estates, that if the revenue were assessed at 45 per cent of the net assets so calculated there would be a considerable enhancement of the revenue. If this method were adopted it would probably be desirable for Government to limit its demand to 40 per cent of the net assets of any particular zemindari estate.

If an announcement of this change of policy were made, it would at once lead to the Talukdars enhancing their rents to the full legal rent, and would thus diminish the amount of nazrana which they could claim.

Administrative Control

It may be surmised that the system outlined above would not altogether prevent the exaction of *nazrana* on a few estates inspite of its having been definitely declared to be illegal. It is true that the peasants are becoming enlightened and are banding themselves together in certain localities in the formation of *kisan sabhas* (or peasant societies). This movement, associated as it has been to a large extent with the non-co-operation movement, has in many parts assumed a lawless character. It is reasonable to hope, however, that it will lead to permanently beneficial results. The peasants are by nature a law-abiding class, who merely wish to be left to pursue their cultivation in peace. When their just grievances are ameliorated the unruly elements will find themselves in a minority, and the tendency will be for the *kisan sabhas*, wherever they survive, to interest themselves mainly in the enforcement of the law and in the checking of illegal practices.

Whilst it is to be hoped that this power of self-protection is growing amongst the tenants, it would be idle to place too much reliance on its effectiveness whilst the mass of the cultivators remain illiterate. It would appear essential, therefore, for Government to interest itself directly in the suppression of illegal practices, and this it can do only by establishing some form of special control over estates where such practices occur in the manner suggested in a previous lecture. The illegal exactions may be divided into two classes—those made by the orders of or with the knowledge of the landlord himself, and those made by his agent or his subordinates without the knowledge of the landlord. It is probably impossible to stop altogether the exaction of gratuities by the landlord's subordinate staff, for it is almost an established custom of the country that such payments should be made to subordinate officers holding authority. In the railways, irrigation canals, and other Government services the practice is wide-spread. Control would not need to be established on this account, unless the exactions were made on such a scale as to be unreasonable and oppressive.

As I said in an earlier lecture, there might be three degrees of control : (1) in the first instance, where the landlord himself is well-disposed, it would be sufficient for Government to insist that the agent and his subordinates be certificated men—that is to say, those who have had a proper training and are considered on grounds of character and reputation suitable for such positions of responsibility ; (2) in more serious cases, where the landlord himself seems to have connived at the illegal exactions, or in oppression of the tenants, control should be taken away from him entirely and the estate should be put at once in charge of the Managing Department. This assumption of control would, however, be regarded as temporary, and the landlord

would be consulted as to the policy of improving the management of his estate ; (3) in still more serious cases, where it appeared hopeless to expect the owner of the estate ever to become an efficient manager, the control would be permanently removed to the Department, and the owner would simply receive the income, which might be paid to him by the managing department after deduction of the expenses of management and of a tax imposed by way of penalty.

In the latter case the law might give Government the option of deciding to sell the estate, and the sale would be made to the highest bidder amongst the purchasers approved by Government as likely to be good landlords—the obligation for residence for the greater part of the year being one of the conditions imposed on the purchaser. The decision as to whether an estate should be put under any of these forms of administrative control would be most advantageously decided by an arbitration court of five members, composed of two representatives of the landlord class or their agents, two representatives of tenants on other estates and an independent chairman, who should be either a Government officer of the status of a district magistrate, or perhaps an honorary magistrate who was not himself a landowner. In Oudh it might be possible to have the landlord members nominated by the British Indian Association and the tenant representatives by a kisan sabha. It is undesirable that the four non-official members of the arbitration court should be nominated by Government.

It may be supposed that the management of estates decided to be put under administrative control would naturally be handed over to the Court of Wards. I do not think, however, that this would be the best course. The Court of Wards generally still manages according to the old fashioned traditional methods : only a very few of its

officers are interested in the development of agriculture, or know anything about it. Moreover, criticisms are not wanting as to the *zilladars* on Court of Wards estates behaving in a manner almost as oppressive as on private estates. I believe that a new department should be created under the control of the Director of Agriculture which would undertake the management of such estates on the most liberal and enlightened lines.

Training of Estate Agents

For the success of the policy I have outlined, it is an essential condition that a body of trained estate agents and subordinate officers should become available. They should be men of undoubted integrity, taught to regard their profession as one of the most honorable which they could take up. Their pay must, therefore, be adequate to all their needs; and obviously they must be efficiently trained if their work is to be economically worth a high pay.

I would suggest that Government should establish a Diploma of Estate Management for which a two years' course of study would be required at the Agricultural College at Cawnpore, and in Agricultural Institutes at Lucknow, Allahabad and Agra, which might be either Government or aided institutions having the status of Intermediate colleges. The diploma would be a necessary qualification for a man to be put in charge of any estate extending to more than 500 acres in area. The agents' subordinates, and the managers of small estates, should be required to possess a certificate which could be obtained after one year's course of training. I think that having passed the matriculation or school-leaving certificate should be a condition precedent to the admission to the diploma course; but a lower qualification would be admissible for the certificate course. A man who had obtained the diploma should not be permitted to become the agent in charge of an estate until he had passed through a period of

probation for at least three years as an assistant to a diplomaed agent.

It is impossible to overemphasize the advantages which would accrue to the country from the establishment of such courses of study in estate agency, and of ultimately making this qualification compulsory.

Protective Provisions in Detail

A great deal could be done to prevent the disputes and oppression which prevail on some estates by inserting in the Tenancy Law provisions for certain business-like forms of procedure. It is most important that landlords should be required to give receipts for rent and other payments on printed forms. In Gwalior the law provides that a standard form of receipt shall be used by all landlords, and these forms can be purchased at a low price from the State Press. I would like to see such standard rent receipt forms made available in numbered books with counterfoils, these books of receipt forms being on sale at all post offices. It might be an advantage if separate forms, possibly on different colored paper, were issued for each of the two half-yearly payments of rent. This would assist the tenant in knowing that he was getting the proper receipt ; and if it were further enacted that no rent for the current half-year could be accepted until all arrears had been cleared off, the use of these separate receipt forms would go a long way to prevent disputes.

It might be advantageous also for Government to issue forms of yearly agreements and of standard leases. The latter should, however, be in skeleton form, as it would be unwise to prevent a landlord inserting covenants which might be necessary to ensure the maintenance of the land in the proper condition and to improve or safeguard the cultivation.

LECTURE VIII

ESTATE MANAGEMENT

The present lecture will be devoted to a general review of the various ways in which agricultural estates may be developed by the investment of capital, and the principles on which their management should be conducted. We shall take a brief survey of those means which the landlord should adopt for improving the agriculture of his tenants for securing good relations with his tenants, and generally for managing his property and his finances in a prudent and profitable manner.

To begin with, we must notice that the development of a landed estate has two distinct aspects. On the one hand are to be considered its external relations : its access to markets, its connection by *pucca* roads with a main road and with the nearest railway station or market town ; its relation to an irrigation canal or big river, and the means of draining surplus water from the estate. On the other hand, there is the internal development of the estate—the provision of water-supply, of farm buildings, and plantations of trees for fuel and fruits, and so forth. These we must consider separately ; and then we may consider how the practice of agriculture on the estate may be improved by the introduction of machinery, improved live-stock, better seed and so forth. We must then consider the business side of the management of the estate—how it should be organized, and how the improvements should be financed ; and finally we may consider the various ways in which a good landlord will seek to improve the health and general welfare of his tenants.

External Development

Agriculture is tending to become more and more commercial, which means to say that an ever larger proportion of the produce of the farm is being sold in more or less distant markets, the cultivator utilising the money so obtained to purchase his requirements. It is to his advantage to specialize in growing just those crops for which the soil and climate of the estate are particularly suited ; and it may be to his advantage even to sell nearly the whole of the produce of his fields, and to buy from the nearest market town the food which he requires. In any case the prosperity of the tenants will depend greatly upon their being able to dispose of the strictly commercial crops, such as cotton, sugar, tobacco and others to the best advantage. For this reason the landlord would be rendering a great service to the tenants, and incidentally would be improving the rental value of his estate, by doing everything possible to secure improved communications by road, railway and river with the big markets of the country. He should carefully study the situation of his estate in relation to main roads and to railways ; he should seek to induce the District Board to make *pucca* roads which will bear heavy cart traffic connecting some points on his estate with a railway station and also with a main road. If his property is extensive and the crops are valuable, either through the fertility of his soil or the use of canal water, it may very likely be advantageous to offer the District Board to pay half the cost of constructing the necessary road or even, in case of refusal, to bear the entire cost of making three or four miles of metalled road himself. Where the cost of metalled roads is excessively high owing to the absence of any local source of road metal, it may be more advantageous to connect the estate with the nearest railway station by means of a light railway or tramway of 2' or 2' 6'' gauge, as has been done

by Rai Bahadur Ganga Ram at Gangapur in the Lower Chenab Canal Colony. Where canal water is available the landlord will be saved much trouble and expense ; otherwise he must seek some external source of water, such as the construction of a tank or *bund* upon other people's land by means of a combined scheme carried out by agreement as provided for in the Act of 1920, or otherwise he may seek to put a *bund* across some river, and pump water therefrom, paying the owners of intermediate land for the privilege. If he undertakes to supply them with a certain quantity of water on their land, this will probably be more acceptable than any practicable money payment. An outlet for the drainage of his land is of paramount importance, and he must seek the right to drain across his neighbor's land, if necessary, to the nearest *nulla*.

Internal Development

The internal development of the estate is carried out by making what are called permanent improvements. Of these the most necessary usually, where canal water is not available, are deep masonry wells. In certain districts tube-wells might prove advantageous ; and the assistance of the Agricultural Department can be obtained for sinking these. The method of drawing water from the wells needs attention, but no rule can be laid down. Where the well gives an abundance of water, pumping by means of an oil engine should be adopted as this will enable a much larger area to be watered. If the water-supply is not good, water should be raised either by means of an improved Persian wheel, or, if the water-level be deep, by a *mot* raised by one or two bullocks. Various improved forms of *mots* are available which considerably reduce the cost of raising water. The water-supply having been secured, the whole estate should be planned out in holdings of suitable size, and suitable buildings and fences should be erected. The landlord is here

faced with a decision as to his general policy in developing his estate. If he has a considerable area of *sir* land, and land let on yearly tenancies, he will probably find himself free to effect a re-arrangement of holdings with a little trouble so as to secure compact areas. He will either have a large farm which will be worked as his own cultivation on modern methods or he may divide up this free area into compact blocks which he will let to the best cultivators he can find, selecting them definitely because they are good farmers.

The landlord will be hampered in obtaining compact holdings if he has a number of occupancy tenants whose holdings consist of scattered fields. It should be his endeavor to induce the occupancy tenants to accept an exchange of fields with a view to making their own holdings compact areas and also to secure compact areas of non-occupancy land. This re-distribution of fields requires to be very carefully planned out. All the fields must be inspected and valued according to the character of the soil, water-supply, etc.; and care must be taken to give to the tenant in exchange for the fields he gives up others of at least equal value. The tenant will gain by having his holding compact; but it will be necessary to err on the side of being generous to the tenant; and if he has refused to recognize the advantage of the exchange, a slightly larger area may be offered to him, or some other advantage, such as reduction of rent. In making such concessions, the landlord must be careful to see that the aggregate effect upon his rents is to increase his total income and not to diminish it; for this certainly ought to be the financial result of carrying out a consolidation of holdings. At present the law does not enable a landlord to compel occupancy and other privileged tenants either to vacate their holdings with compensation or to accept land in exchange to carry out a consolidation of holdings; nor is consolidation possible

where the owner is hampered by his lands being scattered amongst the fields of other owners. Legislation is badly needed to enable consolidation to be carried out in these cases in spite of the objection of a minority of owners or occupancy tenants.

The policy I would recommend to a landowner is to carry out the consolidation of holdings in such a way as to provide all occupancy tenants with areas equal to those now held, and on free land, whether *sir* land or not, he should provide holding of various sizes, taking special care to have some larger holdings of 50 or 100 acres and upwards which could be rented to men who are enterprising cultivators and have learnt, or are willing to learn, improved methods.

Upon the larger holdings so provided landlords should invest some money in providing the tenant with a good house and with proper farm buildings. He will need grain pits (in dry soil) or a substantial godown for storing grain and *bhusa*, etc. He will need a cattle-shed, and a shed to store his ploughs, harrows, seed-drills and other improved implements. On compact holdings, it is a great advantage to have fields fenced in some way. Wire fences may prove too expensive ; but mud walls which may perhaps be covered with heavy ridge-tiles securely fixed on the top will usually prove satisfactory ; and the landlord may offer to pay the tenant half the cost of constructing these to the landlord's satisfaction.

I have assumed that on the larger of the compact holdings the tenant will be induced to live on the holding ; but the great majority of the tenants will still prefer to live in the village and to go daily to and from their fields. It will be the landlord's duty, therefore, to do all he can towards improving the houses in the village and its sanitation. The present custom by which the tenant pays no rent for his house and nothing for the land on which it stands

is not conducive to improvements being made by the landlord. It may be found necessary to modify this custom in some places and to charge a small rent for the house if it be substantially improved at the landlord's cost.

The landlord cannot be satisfied, however, only with improving his tenants' holdings and his own cultivation. He has to regard his whole estate as a single unit; and he should seek to devote all his resources to its development. He is a lucky man if there is no waste land, or land bringing in a very poor rent, within his boundaries. Of whatever kind the waste land is, there is some means known of improving it and making it bear crops or some useful or saleable produce. It is, however, a question whether the reclamation of such waste land will be financially worth while. In most cases it will be; but if the land is nearly pure sand, or extremely alkaline, the cost may be too high. Where canal water is available ordinary *reh* land can be turned into good productive soil, as experiments by the Agricultural Departments in these Provinces and the Punjab have demonstrated. Ravine land may be reclaimed for cultivation by small *bunds* and progressive levelling; or if very bad they may be planted with quick-growing trees as a fuel reserve. Even if there is no waste land to be planted, it is quite essential that the landlord should see that some land is put under quick-growing trees for the supply of fuel. He should encourage the tenants to cut fuel therefrom for a purely nominal charge on the understanding that they cease to use cow-dung as a fuel and utilize it for manuring their fields. He will also plant trees which produce good timber for ploughs and building purposes, and should plant groves of mango and other fruit-trees suitable to the climate, and have them properly looked after by his own agent. In these and many other ways the landlord can increase the resources of his whole estate. A large *zamindari* is indeed

a kingdom in miniature, and whilst encouraging its commerce with distant markets, the development of its own resources must be attended to.

Improvement of Cultivation.

The landlord, more than anybody else, can improve the standard of cultivation of his tenants; and this by working along several lines at the same time. The tenants are not quick to learn; especially when they are illiterate and suspicious. Moreover, they have often a well-founded objection to trying experiments. To them the failure of a crop is a terrible disaster; and they need practical certainty of success before they will venture on something new. The landlord can do little by way of direct assistance of his tenants. The majority of them will listen respectfully, but do nothing. He will probably be successful, however, if he selects one or two or the more enterprising and intelligent men from each village, gains their confidence and promises them some reward if they are successful in trying the new seed or implements he proposes. Such men, once they have succeeded with a new method, will probably of their own accord instruct the neighboring tenants of the same village. But, if necessary, they may receive some little inducement to do so.

The landlord will be well advised to have a farm of his own on which he tries all the new seeds, implements and other improvements before recommending them to his tenants. They will see that they are successful on land close to their own; but it will need experiments actually on their own land to convince them that the cost is not too great for their own resources—in fact, that the improvements are profitable. The landlord should not farm his own land only for the sake of gaining the greatest profit by large-scale farming. If he wishes to farm part of his land in that way, well and good; but on another part of his *sir* or *khudkash* land he will have

a kind of central depôt where he keeps in stock all kinds of modern implements and a small experimental farm. The man in charge of this depôt should be instructed to admit the tenants freely and to give them all the information and instruction he can. I am inclined to think that one way of gaining the tenants' confidence is to provide them with hand machines for doing much of the laborious work carried on in the villages, such as a small hand-grinding mill for making *atta*, and chaff-cutting machines for chopping *bhusa*, and steelrolling-mills for sugarcane. If the tenants cannot purchase these machines, they should be lent to them on hire. They will certainly prove popular, and may pave the way for the specifically agricultural improvements.

There is no time for me to mention all the other improvements which the landlord may usefully introduce ; but I must refer to the great importance of improving the breed of cattle both for draft purposes and for milking. A good supply of milk is a most urgent necessity in the villages, and the development of a business of supplying pure *ghee* is likely to be very profitable. For this purpose, the landlord may encourage the laying down of pasture with artificial grasses, and the cultivation of fodder crops. He should also construct silo-pits in the villages and see to the filling of these silos with the chopped fodder under the superintendence of a trained man in his own employment.

Managing Staff

The present practice of *zamindari* management in India amounts to nothing more than an organization for collecting rents and for keeping the tenants in order, preventing encroachments, and securing the landlord's rights. The landlord employs an agent (or *karinda*) and he is assisted by one or two clerks (*munshis*). Under his control are a number of subordinates known as *zilludars*, each having charge of one village, in which he usually resides. On large estates

the agent may have an assistant who is not a mere clerk ; or the estate may be divided into sub-divisions each in charge of a *tahsildar*, each having from 8 to 12 *zilladars* under him. This comprises the administrative and executive staff. The legal business of the estate is important and intricate : and every estate extending to 2,000 acres or more will have a permanent legal representative, termed a *mukhtar*, whose business is to attend local courts and file ejectment-notices and conduct all the numerous cases in which the landlord enters as plaintiff or defendant.

In conversation with *talukdars*, *zemindars* and their agents, the impression gained is that most of their thoughts about the management of their estates are centered in litigation. They are proceeding against contumacious tenants, or being sued by tenants who claim various rights. They also get involved in suits with neighboring landowners and their tenants, and also in disputes with more or less distant relatives, claiming some share or division of the property. This I regard as the greatest tragedy of the economic life of rural India and the greatest hindrance to progress. Every effort should be made by simplification of the tenancy law and of procedure in lawcourts to avoid and curtail litigation. I believe that in Oudh a dispute involving no more than a thousand rupees can be carried through seven successive courts (Revenue, Civil and Appellate) before the question is finally settled, involving the continuous attention of both parties and much expenditure for two or three years.

Training of Agents

In the preceding lecture I advocated the training of men for the positions of estate agents and their subordinates. I believe that one advantage of employing trained and certificated men would be to reduce litigation. Instead of their fomenting disputes, as now sometimes happens, they would endeavor to prevent their occurrence : and being men of

education they could often succeed in settling disputes by compromise. In many cases it might be possible to have disputes settled by private arbitration, calling in the agent of a neighboring estate as arbitrator.

The training of agents, such as I have described, must evidently be undertaken along comprehensive lines. The two years' diploma course for the agents themselves will need to cover a general knowledge of improved methods of agriculture, dealt with in an essentially practical spirit ; a knowledge of simple civil engineering so as to design and lay out ordinary farm buildings and irrigation works ; and especially a knowledge and interest in the general development of the resources of the estate. He should also have some mechanical knowledge, sufficient to be able to supervise the trained *mistri*, who must be kept on the estate for the repair of the modern agricultural implements belonging both to landlord and tenants. The agent must also understand the proper keeping of accounts and the finance of investing capital. He must also have a little training in orderly business methods so as to be prompt and systematic in his dealings with the tenants, and so that he may keep all papers properly filed, and be able to conduct correspondence and give proper instructions to the *mukhtar*.

LECTURE IX

GENERAL POLICY

A reformed tenancy system on the lines indicated in a previous lecture (number VII) will not confer so much benefit as we hope upon the tenant, or prosperity on the country at large, unless it be accompanied by vigorous action in other directions for the improvement of agriculture and the status of the rural population. The Legislative Council should give its earnest attention to a big series of measures for the amelioration of the rural population.

I pointed out in my first lecture that no permanent improvement of the condition of *ryots* was possible without raising their standard of living, for the population would always inevitably increase and thereby swallow up any portion of the produce of the land which might be transferred to them. We have, therefore, to consider by what means the standard of living can be raised, and shall find at least four distinct methods presenting themselves which should all be adopted simultaneously.

(1) The most direct method of raising the standard of living is by education : and this has two distinct aspects : (a) general education which will stimulate the wants of the people and give them the idea of a higher standard of life, (b) education and industrial training with a view to making labor more productive, in other words, to provide the means of satisfying the new wants which the general education develops. The productive education would take the form of giving to the instruction in rural primary schools what is called an agricultural color : and a number of agricultural middle schools should also be established.

(2) It is essential to make labor more productive by increasing the proportion of land to labor—in other words, by increasing the average size of the holdings per person employed in cultivation. This necessitates providing more land or, what comes to the same thing, bringing into full use land which is now used only to part of its full capacity. The extent of waste lands in India which are not even bearing forests is extraordinary ; and these can be reclaimed and improved in various ways now well understood. Particular attention should be given to ravine lands and *alkali* lands. Many stretches of sandy country could also be made fertile by a few years of proper treatment, the crops being well manured for the first years. There are lands over-run with weeds, and so-called pasture land, which are mere deserts and should be put under fodder crops.

Besides the waste lands which yield practically no return there are large stretches of land in private ownership which are much under-developed and yield but one-tenth or one-eighth of what they might do. It is characteristic of many Indian landowners that they do not seem to care whether their land is being properly used or not. So long as they get the rent to which they have been accustomed for many years past they will allow much of it to lie uncultivated, and the rest to decline in fertility. The wealth created by agriculture started in England all her industrial advancement ; and it is safe to say that if English landlords had shown this indifference to the proper utilization of their land, England could never have achieved the extraordinary progress of the last century.

The remarks which I have just made apply to areas of land of all sizes, there being many comparatively small holdings which are themselves neglected. There are places where there are large areas of waste land amounting to several thousands of acres in a compact block, and special

schemes should be devised for reclaiming and colonizing them. I would suggest that Government should encourage private enterprise to take up such colonization schemes on waste land by granting liberal financial assistance by way of mortgage loans which would be advanced by stages as the improvements were carried out.

(3) Whilst the development of waste lands will obviously provide room for the emigration of cultivators from surrounding districts, there is another line of economic development which will be more fruitful in making labor more productive. —I mean, the investment of more capital in the land already under cultivation. The permanent improvement of lands has been the burden of my lectures : and it is unnecessary here to repeat a description of the various works by which this is achieved. I am concerned to emphasize that the investment of capital in the land has the result of making the existing labor more productive and also of giving employment to more labor : consequently the investment of capital in the land has just as useful results from the point of view of national economy as bringing more waste land under cultivation.

The raising of the standard of living also results from making labor more productive by investing capital in the operations of cultivation as well as in the permanent improvement of land. Capital invested in better cattle and other live-stock, in keeping and distributing stocks of improved seed, and in agricultural implements and machinery will not only bring a considerable profit to the farmer, but will also result in the payment of a higher rate of wages—in technical language the marginal productivity of labor is increased by this investment of capital.

(4) The last, but not the least important, are the methods of raising the standard of living by the development of industries. By this I mean large scale production in the

mining and metallurgical industries, the development of hydro-electric power schemes, as well as the building of power driven mills and factories in those cities which become industrial centres. It is not to be supposed, however, that the development of urban industries alone is important : it is nearly of equal importance to develop rural industries. This will take two directions : in the first place, the introduction of machinery, largely driven by hand or bullock power, for carrying out the simple operations of the villages ; and on the other hand, the introduction and fostering of suitable cottage industries, such as the knitting of hosiery, and making of toys which the peasants can carry on in their spare time. Every device which makes labor more efficient, or enables people to work in what would otherwise be waste time, increases the total production of wealth and tends to raise the standard of living.

I am not here concerned with the development of urban industries, excepting to point out that their healthy growth will have a reflex action upon the standard of living of the cultivating classes, and this in two ways—partly by attracting labor, from the agricultural districts and thus forcing cultivators to adopt more efficient methods of employing labor, with the use of machinery, and partly by making manufactured commodities of all kinds cheaper for the rural population to purchase.

Limits of State Aid and Intervention

I revert, therefore, to the general problem of the direct improvement of the condition of the rural population ; and I propose now to discuss the extent to which it is necessary that the State should take the initiative therein. It appears to me to be the function of the State to adopt every measure which it can to promote the improvement of agriculture. In pursuing this aim it is important to work in three distinct directions at the same time : (1) by stimulating

agriculture by direct assistance in research, demonstration and distribution of seed, rendering technical advice available and so forth, as is now done on a limited scale by the Agricultural Department, and by agricultural education ; (2) to seek to remove obstacles to the progress of agriculture, and (3) to render indirect assistance, as in the matter of finance. The first of these methods requires a great extension of the operations of the Agricultural Department, which is organized at present on a painfully inadequate scale. When one sees the huge organizations which Government creates and maintains for the defence of the country, for the police, the railways, and even the irrigation canals, the conviction grows that the agricultural activities of the State can only be made commensurate with the needs of the country by organizing upon a similar scale a department which shall permeate the whole country, so that it has thousands of stations with officers situated in every *pariyana* and even in every group of villages.

I come next to the indirect State action for the removal of obstacles to improvement. The most important of these has been already indicated—I mean the establishment of a Tenancy law carefully thought out with the object of giving inducements both to landlords and cultivators to pursue agricultural improvements to their own advantage. Other lines of progress must be followed, however. The State has assumed responsibility for the supply of water through canals over a large area ; but it has not sufficiently realized the advantages which would accrue from undertaking large drainage schemes in a similar manner. It is true that in certain tracts watered by canals, where the land has tended to become water-logged, the Irrigation Department has devoted much attention to drainage, and important main drains and feeder drains have been constructed. Yet it may be confidently said that there are many parts of the country

not watered by canals which suffer severely from water-logging during the monsoon season, thus generally lowering the fertility of the soil. In these districts main drains and feeders passing close to all villages need to be constructed. I think this work ought to be undertaken by a Government department; but interest on the capital outlay may be realized by a cess collected through the district boards and levied upon those lands so situated that they may benefit by the drains constructed. The initiative should be with Government, however, and not be left to the district boards, or nothing will be done. In England drainage schemes have been extensively carried out by the larger landlords; but Government has recognized the importance of stimulating and assisting them, and for this reason considerable sums of money were advanced by Government in the first half of the nineteenth century both to individuals and to groups of landlords and to local authorities. Waste lands in England, for example, fens and bogs, have been reclaimed by companies which carried out drainage schemes, sometimes with Government assistance. In India, besides the drainage schemes which are needed to be carried out by Government, a policy of making loans to the larger *zamindars* for drainage purposes cannot fail to be advantageous if expert advice be made available for their execution.

The making of permanent improvements is very largely a matter of finance. A few *zamindars* possess sufficient free capital of their own for this purpose, if they could be induced to invest it; but on the other hand, there are many whose estates are already encumbered and who save very little out of their incomes. Government already has arrangements for assisting the finance of improvements of many kinds by the advance of loans through the Agricultural Department. It may be questioned, however, whether the time has not arrived to establish what is known

in other countries as a "Land Mortgage Bank", the special object of which is to make loans to land-owners for executing permanent improvements beneficial to agriculture. Such a bank, if established on a large scale, would advance money at about 7 or 8 per cent interest, being 1 per cent higher than it paid on fixed deposits. Existing mortgages at high rates of interest could be paid off, and additional money advanced, whereby the improvement of the estate could be begun. The plans for such improvements would be approved by an agricultural engineer as adviser to the bank, and this would be of advantage to land-owners in preventing the possible waste of capital through their undertaking works which had been hastily considered or improperly designed. In Germany and other European countries such "nobles' banks" or "landed proprietors' mortgage banks" have been in existence for nearly a century. In England they do not seem to have been so necessary, for big insurance companies and other financial institutions have been ready to lend money to landed proprietors for long periods on satisfactory terms.

A great difficulty in the way of successfully promoting land mortgage banks in India, and in fact a difficulty which hampers the investment of capital in the land in all directions, is uncertainty of title. The law of succession, both Hindu and Mahommedan, leaves many openings for unforeseeable claims to a share in the property to arise at any future time. If any such claim be put forward it may either invalidate the sale or mortgage of the land, or the claimant may force the purchaser or mortgagee to pay him a share of the property in capital or income. Many of the joint-stock banks which in former years frequently advanced money on mortgage of land have suffered heavy losses in costly litigation to defend their titles; and they have now very properly almost entirely discontinued

advancing money on the mortgage of land. In any case, it is not a bank's business to lock up money in permanent mortgages ; and the risks connected with uncertainty of title make such business doubly undesirable. Even the private capitalist is none too ready to lend money on mortgage to strangers ; and the high rate of interest required is accounted for partly by the risks attaching to such transactions, as the title cannot be guaranteed secure. I cannot over-emphasize the importance to the prosperity of agriculture and industries in India of undertaking legislation which would have the effect of removing, or at least mitigating, this uncertainty of title.

Another great reform which seems essential to the economic progress of the country is to modify custom and law in such a manner as to discourage the sub-division of the control of landed property amongst the heirs of the owner on his death. When a man with four sons dies, each of them succeeds to a one-fourth share of the property ; and each usually insists on having a perfect partition of the land so as to have his share under his own direct control. Very largely this is a social custom which can only be modified by the general spread of education and by the opening of alternative occupations for some of the sons. A similar law of inheritance exists throughout France and Belgium and has led there to a considerable sub-division of holdings. In recent times this tendency has been checked by the migration of the younger sons to industrial occupations, one of the sons, often the eldest, either manages the property on behalf of others, paying them their share, or more usually he manages to accumulate a sufficient capital out of the profits of his cultivation to buy out the other heirs. There are many people who argue in favor of the introduction of permissive or even compulsory adoption of the law of primogeniture with a view to avoiding sub-division of

landed property in India : and primogeniture is the rule in *talukdari* estates in Oudh, and in farms held for special purposes in the canal colonies of the Punjab (especially the Upper Jhelum colony) ; and a permissive law for this purpose has recently been passed in the Agra Province. It is doubtful whether the legislature can do anything further : but social reformers will be doing a service to the country in trying to establish a custom of avoiding in various ways the further sub-division of land.

In conclusion, I would ask you to notice that the various measures of reform which I have mentioned in this lecture are all necessary as auxiliaries in the promotion of the general economic welfare of the country. In this course of lectures I selected two particular lines of reform for detailed discussion, especially in their economic aspects, namely, tenancy law and estate development. These I selected not only on account of their present interest, but also because they appear to me to be precisely those lines of advance which promise the greatest fruits in enhancing the welfare of the people of India. Furthermore, it is these very subjects—the economics of tenancy law, the improvement of land, and the principles of estate management—which are so little understood in this country.

The backwardness of India in the practice of agriculture and everything which assists therein is both lamentable and remarkable. Considering the extraordinary advance in education of a literary character and the rapid growth of universities ; considering the progress in introducing western industries on a large scale, the backward condition of agriculture is undoubtedly a reproach to the country—a reproach to the Government and a reproach to the people. It is for the latter to arouse themselves to an understanding of the supreme importance of agricultural prosperity, to learn the paths of progress, to adopt a new ideal and to be

willing to make sacrifices for its achievement. This they can do in the sure conviction that the future greatness of India in the world of nations depends upon the progress of agriculture more than upon any other single activity. The production of ever increasing wealth from the soil will create a demand for manufactured goods of all kinds—trade will be stimulated and capital will be accumulated. By advancing in agriculture, India will also advance in industries. Her millions, being thus assured of their daily bread, will have the opportunity of advancing in knowledge and culture. Thus will India achieve her heart's desire and stand equal with the greatest nations of the world.

APPENDIX

In delivering the lectures published in this volume it was not practicable to refer to the various books and documents which I had selected. It seems desirable, however, that I should indicate briefly the literature on which I have relied and give explanatory remarks as to the information to be derived from each book. It is impracticable to print an exhaustive list, and so I select those books on which I have relied more especially. Books relating to England and foreign countries are given in the first list. They are all available for reference in the Library of the University of Allahabad; and all the modern books can easily be purchased from England through a bookseller. In the second list I mention writings relating to India, and more particularly to the United Provinces, which have a bearing on the subject of my lectures.

I

Rural Reconstruction in Ireland.—By L. SMITH-GORDON and L. C. STAPLES. (P. S. King & Son, London. 1919.)

Chapter II is devoted to land legislation in Ireland. Legislation in favour of the tenant began in 1870. The Act of this year applied particularly to yearly tenancies up to the value of £100. The tenant of Ulster was guaranteed a certain fixity of tenure; and in case of arbitrary ejection was entitled to compensation for disturbance as well as for improvements. Judicial machinery was provided for determining such claims to compensation. A more thorough and extensive Act was that of 1881, which for the first time introduced the principle of definitely recognizing fixity of tenure and the determination of a fair rent by the county

courts and the reconstituted Land Commission. The tenant was also granted power of sale of his lease.

" Yet despite the liberality of the law of 1881 and the enthusiasm of the Irish people for the reform, its success was far from realizing the hopes which were based on it. Agitation, punctuated by agrarian crimes of every description, continued. In 1886, the publication of the Plan of Campaign intimated that the tenants were bent on having things even more completely their own way. In case rents were considered unfair, there was to be a general no-rent strike on the estate in question, and the amounts withheld were to furnish the means for obtaining further concessions. Nor did attempted improvements of the law in 1887, 1891 and 1896 have appreciable results. Nevertheless, up to March 31, 1914, determinations had been made by civil courts and the Land Commission in respect of 410,150 cases. Of these, 295,673 were for the first period of fifteen years, 111,794 for the second, and 2,683 for the third. These represent a very considerable proportion of the total land holdings in Ireland. And the fact that already a very considerable number of third-term determinations have been made indicate that this legislation is still of importance."... " Laissez-faire had produced in rack-rents an intolerable situation ; governmental control under a system of judicial rents had a hardly more satisfactory outcome.

"The reasons for this failure are not difficult to discover. In the first place, the landlords had a grievance. The judicial rents represented decreases over the previous payments averaging 20, 19, and 9 per cent for the three determinations. It seemed a legal confiscation of property, for in many cases the income of the owner was all but completely absorbed. Nevertheless, no measure of Irish reform could be withheld on that account. Irish conditions were so serious as to merit unusual treatment.

Vested interests can never continue indefinitely to prey on any community; they must sooner or later suffer a reaction proportionate to their privileges. So long as the judicial represented a decrease over the competitive rents, this legislation was naturally popular with the tenant class. But it was not clear what the attitude of the tenants would be in the event of a market of rising prices. The measure of success attained by the rent-fixing legislation was the outcome of its incidental or particular results rather than a justification of its principles. On this account, rather than because of any paucity of results, the law of 1881 must be looked upon as a failure. The rents were not fixed upon any particular or just principle. The decreases bore no real relation to the fluctuations in prices. What was determined was not so much a judicial as a popular rent. Out of this lack of a sound basis for the determination developed a dangerous abuse, calculated not to strengthen Irish industrial character as was necessary, but in fact to weaken it further. A most important factor in the determination of the rent came to be the evident prosperity of the tenant. One of the chief abuses of the rack-rent system reappeared in a new form. Thus of two brothers on similar holdings, the more lazy and inefficient paid a lower rent than the more enterprising. Not productivity, but production, and more especially the evidences of production at the fifteenth year, were the determining factors. The decrease in agricultural prices during the eighties was a great spur to increased efficiency of production in other countries, hastening the introduction of scientific agriculture, up-to-date machinery, and better methods of business organization. But in Ireland this quickening impulse was not felt for the reason that the depression was met largely through the decrease in rents. The attempt to put the landlord-tenant system on a fair basis by artificial means evidently did not

meet the situation. A more comprehensive and revolutionary form of legislation was demanded."

State assistance in the purchase of land by the tenants was recognized as early as an Act of 1869, and reaffirmed in the Acts of 1870 and 1881; but the tenants usually could not provide the one-fourth of the purchase price and the heavy legal costs of transfer. The Act of 1885 provided a large fund for advance of loans to tenants at 3 per cent interest and 1 per cent sinking fund. The Act of 1891 provided for the purchase of whole estates from the landlords by the issue of Irish Land Stock. However, the Land Stock rapidly fell below par and the terms of purchase became unattractive to landlords. This resulted in the Acts of 1896 and 1903. Finally in 1909 an enormous sum of money was paid as a bonus by the British Government to the Irish landlords to induce them to sell their land on terms which enabled the tenants to buy the land by means of an annuity for $68\frac{1}{2}$ years including interest and sinking fund, which was no greater than the reduced rentals the tenants were already paying.

"The actual result of the Land Purchase Acts in Ireland has been to create a country of peasant proprietors. By March 31, 1915, nearly 300,000 holdings had passed into the hands of their occupiers. These represented nearly ten million acres of land. At the same time, an additional 100,000 holdings of over three million acres were in process of negotiation. Together these comprised more than three-quarters of the soil of the country. A sum of nearly £100,000,000 had been advanced by the Government in order to achieve this remarkable result. Ireland has, it is true, not yet seen the end of agrarian legislation. There have already been several efforts to amend further the Act of 1903. Of the proposals made, the most important seems to be the extension of compulsory sale throughout the

country. Such a measure, however, would be a last resort against a small and recalcitrant minority. The effects of the present heavy issues of Government securities at a high rate of interest is another matter which will inevitably require adjustment after the war. On the whole, however, the problem of agrarian tenures in Ireland has been solved. The Irish problem is now chiefly a problem of small peasant proprietors."

Many interesting details are given in this book which cannot be quoted here; and there is also a description of the remarkable work done by the Congested Districts Board.

Land and Labour: Lessons from Belgium.—By B. SEEBOHM ROWNTREE. (Macmillan & Co., London, 1911.)

This is a very remarkable economic and social study of a small but thickly populated country. The land system of Belgium is described and its economic results are considered. In Part I there are chapters on the history of land tenure, the number of land-owners in Belgium classified according to the size of their holdings; the laws of succession and inheritance and methods of land transfer. In Part III, which is devoted to agriculture, we find the first chapter devoted to a description of the small holdings, which are characteristic of a large part of the country. Three-fourths of the smallest cultivators are tenants, and only one-fourth own their holdings; yet there is no obvious difference between the efficiency of cultivation in these two classes of holdings. Belgium suffers like India from the continual sub-division of holdings on account of the law of inheritance by which people divide the property in equal shares; and although the State has done something to encourage consolidation by exchange of fields, a large proportion of the holdings still consist of a number of widely scattered fields. The disadvantages of this are graphically set forth.

We find that, as in India, the sentimental desire to be a land-owner, induces peasants to purchase small plots of land at inflated prices. There are, however, four features of the agriculture of Belgium which are different from those of India : (1) the peasant has learnt, and with the assistance of the State Department of Agriculture continues increasingly to learn, improved methods of cultivation ; (2) the Landlords are men who themselves understand agriculture and are therefore reasonable and helpful in their dealings with their tenants ; (3) there are many big towns and industrial centres in which there is a demand for fruit and vegetables, and other garden produce, and much of such produce is exported to England. Poultry and dairy farming are important for the same reason. (4) There are active agricultural credit societies and co-operative purchasing and sales societies.

The other chapters on agriculture deal with the methods of letting land ; the common lands of Belgium ; the price and rent of land ; woods and forests ; market gardening, crops, live-stock ; the agricultural population ; agricultural education ; and co-operative societies. In Part IV the influence of means of transport, and especially the development of roads and light railways, on agriculture is discussed ; and the system of taxation.

Other parts of the book deal with the standard of life, and the social conditions, housing, etc., of both the agricultural and industrial classes. The author has collected a great mass of original statistics, which are set out in a clear and graphic manner. The book certainly ought to be studied by all those interesting themselves in the welfare of rural India. It is valuable as affording examples of how a country has progressed in spite of difficulties similar to many of those existing in India ; and it is equally valuable as suggesting many possible fruitful lines of enquiry in India.

An Economic History of Russia.—By JAMES MAVOR. 2 volumes. (J. M. Dent & Sons, London. 1914.)

This comprehensive work contains several chapters tracing the history of the agrarian movements from the first efforts to ameliorate the condition of the serfs to the great Emancipation Act of 1861. Previously the greater part of Russia had been in the possession of landlords on whose estates the peasants were settled as serfs bound to their masters and with no proprietary rights in any land. In return, for compulsory service (*brigor*) rendered to the landlord they were allowed to cultivate fields which were re-allotted from time to time. The general principle of the Emancipation Act was to turn them into fixed-rate permanent tenants of the land owners. The lands of each village were divided between the land-owner and the peasants, the former usually getting from one-fourth to one-third. This was land which he could cultivate or let out as he pleased. The remaining land was divided amongst the peasants, the area of land granted being proportionate to the number of male workers in each family, and it was subject to a fixed rent payable to the land-owner. Various special arrangements were made in different parts of Russia. The peasants were entitled to commute their rents at a certain purchase price and some State assistance was given. The system established by the Emancipation Act appears gradually to have become economically unsound, owing to the growth of population, and during the past twenty-five years agrarian unrest has been chronic. The Author describes in the second volume the condition of the peasantry and the agrarian problem in 1905. The whole system has been swept away by the Revolution of 1917.

Systems of Land Tenure in Various Countries.—Essays published by the Cobden Club. (Macmillan & Co., London. 1870.)

Although this book is much out of date it contains useful information as to the former condition of land tenure in France, Germany, Belgium, Russia, Ireland, the United States, and other countries. There are eight different authors who express various opinions about the systems of land tenure which they describe. In Germany the landlord and tenant system flourishes, particularly in Prussia ; but in various parts peasant proprietorship also exists. France is essentially a country of small peasant proprietors. The ease with which land can be transferred is a factor of success in peasant proprietorship both in France and Germany ; but I may point out that it has to be remembered that the maintenance of the standard of living of the peasant population depends in France on the fact that the population is stationary in numbers and in Germany on the enormous and rapid growth of industries, and the consequent attraction of labor to the towns.

English Farming : Past and Present.—By R. E. PROTHIERO. (Longmans, Green & Co., London. 1912.)

This is one of the best of numerous books dealing with the history of English Agriculture. The Appendix contains an interesting bibliography of early books on agriculture down to the year 1700 and numerous tables of statistics.

A Pilgrimage of British Farming.—By A. D. HALL. (John Murray, London. 1913.)

This book gives a remarkable picture of farming in all parts of the United Kingdom as carried on immediately before the war. The small holdings of Wales, Scotland and Ireland as well as parts of England are described equally with the large commercial farms. Market gardening, dairying, agricultural co-operation, the effects of rising rents, and many other topics are dealt with.

The Disappearance of the Small Land-owner.—

By H. JOHNSON. (Oxford : Clarendon Press. 1900.)

A small book, giving much detailed and interesting information as to the changes of land tenure which have taken place in England, especially during the past two centuries.

Agricultural Tenancies.—By C. E. CURTIS and R. A. GORDON. (Crosby Lockwood & Son, London. 1910.)

This is a very practical and complete book on the agricultural tenancy system of England. The Appendix contains the Agricultural Holdings Act of 1908, and a number of other Acts and rules in force in the United Kingdom.

Estate Economics.—By ANDREW SLATER. (Constable & Co., London. 1917.)

Land Drainage.—By J. L. PARSONS. (Myron C. Clark Publishing Co., Chicago. 1915).

These are typical of a large number of books which have been published in recent years in England and America on the permanent improvement of agricultural land. They indicate how the study of this important subject should be developed in India.

Encyclopedia of Agriculture.—By J. C. LOUDON. (London. 1831).

This very interesting and comprehensive book, written at a period when English agriculture was already far advanced, contains in Part III a detailed description of the permanent improvements of farms, a complete treatise on estate management, and a description of the relations of landlord and tenant, in reading which it is to be borne in mind that no legislation for the protection of tenant had then been enacted in England. This book, like many others

of the early works on agriculture of England, is of great interest by way of comparison with the conditions prevailing in India, the reason being that the mechanical appliances adopted in the last fifty years by farmers in England, and which attract so much of the attention of the public were then wholly absent. We see how much improvement can be effected merely by the intelligent use of the resources of the locality.

Estate Management.—By C. E. CURTIS. (Horace Cox, "The Field" Office. 1911.)

This is a standard work on estate management and gives an excellent idea of all the duties connected with the management of landed property. The principles must be the same in India, though the particular trees and crops are different and so also will be the design of the buildings. The book has chapters on Letting and Leases, Farm Valuations, the Management of Wood-lands; the laying out and management of the home farm, on repairs, and the avoidance of pests on wheat and other crops. A Supplement treats of the law relating to landlord-tenant and to land agents. The book contains a typical agreement, and a reprint of the Agricultural Holdings Act of 1908 with full explanations.

II

The Bases of Agricultural Practice and Economics in the United Provinces, India.—By H. MARTIN LEAKE. (Macmillan & Co., 1921.)

This book is a very important contribution to the agricultural economics of these Provinces. The ownership of land and the relations of landlord, tenant and the State are discussed, as well as the *zamindar's* rôle in the development of agricultural operations and the means of supplying

capital to the agricultural industry. The problems of marketing and power receive attention, as well as the economic and physical conditions affecting cultivation and the other operations of agriculture.

The Revenue Administration of the United Provinces.—By W. H. MORELAND, I. C. S. (“The Pioneer” Press, Allahabad. 1911.)

After an historical introduction, deals with the tenancy legislation of Agra and Oudh, and describes the land records system, the village field and proprietary registers, etc., and the organization of the revenue and record staff.

Notes on the Agricultural Conditions and Problems of the United Provinces.—By W. H. MORELAND, I. C. S. (Government Press, U. P., Allahabad. 1914.)

A mass of descriptive details of the districts separately, with a general Introduction.

The Agriculture of the United Provinces.—By W. H. MORELAND, I. C. S., C. S. I. (Government Press, U. P., Allahabad. 1912.)

The best description of the agriculture of these Provinces, with a chapter on the management and improvement of estates.

The Ideal System of Land Tenure.—By BRIJ GOPAL BHATNAGAR, M. A. (Proceedings of the Conference of the Indian Economic Association, 1920-21, in “Indian Journal of Economics”, Volume III, Part 4, 1921. Published by the Head Clerk, Economics Department, The University, Allahabad.)

This paper, read at the Allahabad Conference of the Indian Economic Association, advocates the landlord system

as advantageous to the country, which can thus have a cultured leisured class.

The Way to Agricultural Progress.—By D. S. DUBEY. (Thacker, Spink & Co., Calcutta. 1921.)

Deals with the whole problem of promoting agricultural progress and briefly with tenancy questions.

BIBLIOGRAPHY OF ECONOMIC BOOKS RELATING TO INDIA

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PREFACE

BY PROFESSOR H. STANLEY JEVONS

This Bibliography was commenced and more than half completed by Mr. Jagdish Prasad, M.A., whilst he was working as a University Scholar in the Economics Department of the Allahabad University. Since he left Allahabad the Lecturers and other Scholars in the Department have from time to time added additional references, and finally Mr. R. R. Chaube, Research Assistant, has added a number of further entries, especially relating to the numerous publications of the last two or three years. So far as practicable the books were consulted, either in the University Library, or in the Thornhill Public Library, Allahabad, where the McMinn Collection contains a number of the older books relating to the economic conditions of India. Other entries have been secured by means of references and foot-notes in some of the books contained in this Bibliography. An attempt was made to see some of the older books not available in Allahabad in the Imperial Library, Calcutta ; but although mentioned in the catalogue these old books were found to be missing, almost without exception. My own work has been limited to a criticism, and in some cases revision, of the references collected by the above-mentioned compilers of the Bibliography ; and to correcting the proof, to which Mr. C. A. Warburton has added the finishing touches. It has not been possible for me to examine many of the books themselves,

excepting the better known and modern. For this reason, and because several persons have contributed separately to the compilation, it is quite possible that there are errors in the classification—particularly when the title does not accurately describe the book.

In referring to the Bibliography, the reader will kindly bear in mind its scope. It is intended to include only published books; and does not include articles which have appeared in periodicals unless they have been subsequently published separately. The great mass of Government publications is also excluded; but exception has been made in a few cases, so that a few books or monographs on economic and industrial subjects are included though published by Government; likewise a few of the Reports of Commissions and Committees of economic interest, and some of the more important annual reports.

It should be remembered that the Bibliography was not prepared with the object of serving as a guide to all writings and material relating to modern economic conditions. The purpose with which it was undertaken was to save the many writings of an economic character or interest of former times relating to India from falling into complete oblivion. This being the purpose in view, and the time at my disposal limited, there was no special object or opportunity for adding critical notes as to the scope or value of each of the books. Naturally they differ very much in value; but the reader must use his own discretion. The classification was adopted as the best substitute for notes indicating the scope of each work; and I hope it is sufficiently detailed to be of service. A few books more of a political or historical character than economic have been included, especially amongst the

earlier writings. It did not seem to be worth while to be too scrupulous in exclusion ; but modern works of a similar character have generally not been included. I commend to the reader Mr. Jagdish Prasad's Introduction which is an interesting survey of the character of literature relating to economics in India.

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INTRODUCTION

THE LITERATURE OF INDIAN ECONOMICS

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Objects of the Bibliography

The preparation of a Bibliography of Indian Economics was assigned to me as my special work in connection with the Seminar of the Economics Department of the University of Allahabad. This undertaking had its origin in the well-established practice of the Western Universities of starting research work in any line of investigation by compiling a bibliography on the subject, not only in order to ascertain and collect for future workers, the work done on the subject by previous authors, but also to give the student the needful exercise and academic discipline. The desirability of undertaking such a bibliography as one of the first tasks, was accentuated by the absence of any general bibliography on Indian Economics.

It is hoped that this bibliography may serve other purposes besides those just indicated. It may serve as a guide to the student who may wish to make a special study of any branch of the subject. Professors may find it useful for their lectures. Authors desirous of knowing what has been written on a certain subject will welcome the aid which this bibliography will be able to render; and those who are equipping a library will also find it useful to consult.

Scope and Sources

The bibliography contains books, pamphlets, and monograph reports on Indian Economics, other than those serial publications, reports, and documents, published by the authority or under the directions of the Government—foreign or Indian. Books on technical subjects are not included in it.

The bibliography has been prepared mainly from the catalogues of the Imperial and other libraries, price lists of some booksellers, and from a personal inspection of certain collections of old books, particularly the University Library and the Thornhill Public Library, Allahabad, which contains the McMinn collection of old works on economics.

Classification

It has been found convenient to classify the books under the following heads :—

1. Theory.
2. General.
3. History.
4. Rural Economy and Agriculture.
5. Extractive Industries other than Agriculture, and Natural Resources.
6. Manufacturing Industries.
7. Trade and Commerce.
8. Labour Problems.
9. Famine and Poverty.
10. Capital and Banking.
11. Co-operation.
12. Currency and Exchange.
13. Prices.
14. Public Finance.
 - (1) General.

- (2) Land Revenue.
- (3) Tariff.
- (4) Public Debt.
- (5) Other heads of income and expenditure.
- 15. Public Works.
 - (1) General.
 - (2) Railways.
 - (3) Irrigation.
 - (4) Other Works.
- 16. Census and Vital Statistics.
- 17. Local Self-Government.
- 18. Town Planning.

*General Observations on the Literature of Indian
Economics*

What strikes us most in the bibliography is the extreme meagreness of books as compared with the importance of the subject. Most of them have been written by Europeans in the civil service of the country or connected with it by trade or in some other way. Indian authors are very few, and even these belong to very recent years. This is very much to be regretted, as the true condition of the country and its people cannot so well be known to foreigners as to its own inhabitants.

But the reason is not far to seek. The Indian mind has always shown a liking for religion and philosophy; and material welfare was not deemed worthy of serious thought, if not actually despised. Besides this, the subject itself is of recent growth.

But the contact of the western nations has changed the vision of the East. The chief characteristic of modern India is its inclination towards materialism and its apathy towards religion. This has been further developed by the poverty and suffering of the people which characterises

the age. All this combined with the development of constitutional government and the spread of general education has awakened the interest of the general public towards administrative and economic problems. Under these circumstances we have every reason to hope that economic literature will be enriched very soon, and that by Indians.

It is also interesting to note that the number of books written from the purely scientific point of view is very small. Most books have been written by party politicians in the course of some controversy and hence lack that unprejudiced spirit with which every scientific work should be inspired.

By nature Economics is a debatable subject, and, being connected with politics, this characteristic is brought into greater prominence, probably nowhere more than in Great Britain, the birth place, of economic science, the land of diverse political parties. But there are special reasons for its being so in India. The Government being foreign, many educated and thoughtful Indians tend to view with suspicion almost every piece of legislation and are not unwilling to give credence to the popular opinion that Indian interests are too often sacrificed at the altar of those of Great Britain ; and this is not strange, for the British Government succeeded the East India Company—a commercial body looking, naturally, more to the dividends of its share-holders than to the permanent interests of the country.

But the recent awakening of public interest in economic matters and the tendency to a departure from *laissez faire* on the part of the Government, combined with an active encouragement of research study in the various Universities, bids fair to result in a rapid multiplication of scientific works and investigations in the near future.

BIBLIOGRAPHY OF ECONOMIC BOOKS RELATING TO INDIA

1.—THEORY

ANONYMOUS—Chapters on Political Economy, Allahabad : 1854.

BELL (H.)—The Laws of Wealth ; a Primer on Political Economy for the Middle Classes in India. Calcutta : 1883.

CORNAH (J. R.)—Simple Economics for Indian Schools and Colleges. London : 1912. pp. viii+118.

JEVONS (H. S.)—Economics in India. Inaugural Lecture. (Bulletin No. 1, Economics Department) Allahabad : 1915. pp. 35.

LLOYD—The Theory of Distribution. London : 1911.

MORELAND (W. H.)—An Introduction to Economics for Indian Students. London : 1913. pp. xi+343.

MUKERJEE (Radhakamal)—Comparative Economics (*See under 2—GENERAL*).

Sirkar (Vinayakumar)—Economics. Calcutta : 1910.

SYNGE (Major Mark)—Elementary Economics, as an aid to the Supply and Transport Officer. 2nd. ed. Calcutta (Supt. Govt. Printing, India) : 1918. pp. xii+229.

2.—GENERAL

SECTION A

- BANERJI** (Pramathanath)—A Study of Indian Economics
London : 1911. pp. viii + 347.
- BHARGAVA** (Shanker Prasad)—Outlines of Indian Economics. 2nd ed. Agra (L. N. Agarwala) : 1919.
pp. iv + 250.
- CHATTERJI** (H. S.)—Indian Economics. Calcutta : 1916.
pp. x + 473.
- KALE** (V. G.)—Introduction to the Study of Indian Economics. Poona : 1917. pp. 466.
- KALE** (V. G.)—Gokhale and Economic Reforms. Poona : 1916. pp. 241.
- KALE** (V. G.)—Indian Industrial and Economic Problems.
- KUNJ BEHARI BALLABH**—A Few Thoughts on Economic India. pp. iii + 286. Bankura : 1910.
- KETKAR** (S. V.)—An Essay on Indian Economics. Calcutta : 1914. pp. 124.
- SMITH** (H. B. Lees)—Studies in Indian Economics. London : 1909.
- YUSUF ALI** (Abdullah)—Life and Labor of the People of India. London : 1917. pp. xii + 360.

SECTION B

- BANNERJI** (P.)—Public Administration in Ancient India
London : 1916. pp. xi + 316.
- BLUNT** (W. S.)—Ideas about India. London : 1885. pp. xviii + 202.
- BOWMAN** (Rev. A. H.)—Signs of the Times in India to-day. London : 1905.
- BRIJ NARAYAN**—Essays on Indian Economics. Lahore (College).
- CHIROL** (Sir Valentine)—Indian Unrest. London : 1910.
- CHANDRANATH BASU**—England's Administration of India.
Calcutta : 1907.
- CHESNEY** (Sir George)—Indian Polity. London : 1894.

- CHAILLEY—Administrative Problems of British India.
London : 1910.
- CROOKE (William)—Things Indian. London : 1906. pp. 536.
- CURTIS (W. E.)—Modern India. Chicago : 1905.
- COTTON (Sir Henry J. S.)—New India. London : 1909.
pp. ix+301.
- COTTON (Sir Henry J. S.)—India : a policy and a prospect.
London : 1905.
- DEL MAR (Walter)—India of to-day. London : 1905.
- DONIE (Sir James)—The Punjab, N. W. F. Provinces and
Kashmere. Cambridge (Univ. P.) : 1916. pp. xiv+373.
- EASTERN (George)—The Annals of Indian Administration.
1858.
- FULLER (Sir J. Bampfylde)—The Empire of India. London :
1913.
- FULLER (Sir J. Bampfylde)—Studies of Indian life and
sentiment. London : 1910.
- GOVIND DAS—The Governance of India. Madras : 1917.
- GHAMAT (K. E.)—The Present State of India. Bombay :
1905.
- GARTH (Sir Richard)—A few plain Truths about India.
London : 1888.
- GHOSH (Charuchandra)—England's Administration of India.
- GHOSH (Nagendra Nath)—England's Work in India.
Calcutta : 1909.
- GOKHALE (G. K.)—Specches. Madras (Natesan) : 1916.
pp. vii+1236+xvii.
- HUNTER (Sir W. W.)—England's Work in India. Madras :
1888.
- HOLDICH (Col. Sir Thomas Hungerford)—India. London :
1904.
- HOLDERNESS (Sir T. W.)—Peoples and Problems of India.
London : 1912.
- ILBERT (C.)—The Government of India. Oxford : 1898.
- JONES (John P.)—India : its Life and Thought. New
York : 1909.

- KALE (V. G.)**—Indian Administration. Poona (Aryabhushan) : 1917. pp. ii+416+iv.
- KESAB CHANDRA SEN**—British Rule in India. Calcutta : 1909.
- LEE-WARNER**—The Citizen of India. London : 1907.
- LAW (Narendra Nath)**—Studies in Ancient Hindu Polity. London : 1914. pp. xlv+195.
- MALABARI (Bahramji M.)**—Indian in 1897. Bombay : 1898.
- MALABARI (Bahramji M.)**—The Indian Problem. Bombay : 1894.
- MARTIN (R. M.)**—The Progress and Present State of British India. London : 1862.
- MARTIN (R. M.)**—The Political, Commercial, and Financial condition of the Anglo-Eastern Empire, in 1832. London : 1832.
- MARTIN (R. M.)**—The Indian Empire : its history, topography, government, finance, commerce, and staple products. 3 vols. London : 1858-61.
- MALCOLM (Sir John)**—The Government of India. London : 1833.
- MANOHARLAL**—Our Motherland. Allahabad : 1908.
- MAZUMDAR (N. M.)**—A Study of Indian Economics with a list of books and official publications on the subject.
- MITRA (S. M.)**—Indian Problems. London : 1908. pp. xxvii+404.
- MALCOLM (Ian)**—Indian Pictures and Problems. London : 1907.
- MILLS (A.)**—India in 1858. London : 1858.
- MODY (H. P.)**—The Political Future of India—a study of the aspirations of educated Indians. London : 1908.
- MORLEY (JOHN)**—Indian Speeches (1907-09). London : 1909.
- MORISON (Theodore)**—The Industrial Organization of an Indian Province. London : 1906. pp. vi+327.
- MORISON (Theodore)**—The Economic Transition in India. London : 1911. pp. 251.

- MUKERJI (P.)—The Indian Constitution, Calcutta (Thacker Spink & Co): 1920. pp. xxii+612.
- MUKERJEE (Radhakamal)—The Foundations of Indian Economics. London (Longmans): 1916. pp. xxvi+515.
- MUKERJEE (Radhakamal)—Principles of Comparative Economics. London (P. S. King & Son): 1921. Vol. I, pp. xxviii+336; Vol. II, pp. vi+446.
- NIHALSINGH (St.)—Progressive British India. Edinburgh: 1914.
- NEVINSON (Henry W.)—The New Spirit in India. London: 1908.
- O'DONNELL (Charles James)—The Causes of Present Discontent in India. London: 1908. pp. 119.
- PALIT (R.)—Sketches of Indian Economics. Madras: 1910. pp. viii+336.
- PANANDIKAR (S. G.)—Economic Consequences of the War for India. Bombay (Taraporewala): 1921. pp. 460.
- PANIKKAR (K. M.)—The Problems of Greater India. Madras (Swaminathan): 1916. pp. v+97.
- PHILLIPS—Our Administration of India. London: 1886. xvi+240.
- PATTERSON (R. H.)—The Great Indian Question. London.
- RANADE (M. G.)—Essays on Indian Economics. Madras: 1906. pp. iii+353.
- RISLEY (Sir Herbert)—People of India. London: 1915. pp. 454.
- RICHARDS (A. M. C.)—India in Nine Chapters. London: 1916.
- REES (J. D.)—The Real India. London: 1909.
- REED (Sir Stanley)—The Indian Year Book (Annual). Bombay: 1916 to 1923. pp. 739, and in 1922 pp. 864. (current)
- SAKSENA (I. B.)—Economic Effects of the War on India. Lucknow (Anglo-Oriental): 1920. pp. ix+138.

- SARKAR (Jadunath)**—*Economics of British India*. Calcutta (Sarkar) : 1917. pp. viii+374.
- SHAH (D. A.)**—*The Indian Point of view in Economics*. Bombay (Varbhai) : 1920. pp. 78.
- SHAH (K. T.)**—*Governance of India*. Bombay : 1917. pp. 345.
- SEELY (Captain John B.)**—*A Voice from India in Answer to the Reformers in England*. London : 1824.
- SULLIVAN (John)**—*Tracts upon India : written in the years 1799, 1780 and 1788*. London : 1794.
- SAWTELL (A. O.)**—*Actual India*. 1914.
- SMITH (Samuel)**—*India and its Problems*. London : 1915.
- STRACHEY (Sir John)**—*India : Its Administration and Progress*. London : 1911.
- VISVESVARAYA (Sir M.)**—*Reconstructing India*. London (P. S. King and Son) : 1920. pp. viii+333.
- WACHA (Sir D. E.)**—*Speeches and Writings*. Madras (Natesan), pp. 496+44+iv.
- WALLACE (Robert)**—*India in 1887*. Edinburgh : 1888. pp. xii+363.
- WILLIAMS (L. F. Rushbrook)**—*India in 1917-18*. Calcutta (Government Printing) : 1919. pp. xii+220.
- WILLIAMS (L. F. Rushbrook)**—*India in 1920*. Calcutta (Government Printing) : 1921. pp. vi+275. (Annual).

3.—HISTORY

- ABUL FAZL ALLAMI**—*Ayecn Akbari or, the Institutes of the Emperor Akbar*. (Translated by F. Gladwin.) Calcutta : 1790.
- BASU (P.)**—*Indo-Aryan Polity during the period of the Rig Veda*. Allahabad (Pioneer) : 1919. pp. ii+108.
- DUTT (R. C.)**—*The Economic History of India under Early British Rule*. London : 1906. pp. xxiv+436.
- DUTT (R. C.)**—*The Economic History of India in the Victorian Age*. London : 1906. pp. xxii+628.

FOSTER (Williams)—The English Factories in India 1624-36. A Calender of documents in the India office. Oxford (Clarendon Press): Vol. I, 1909. pp. xlviii+358; Vol. II, 1910. pp. xxxix+354; Vol. III, 1911. pp. xl+355.

HUNTER (Sir Wm. Wilson)—Annals of Rural Bengal. London: 1897. pp. 475.

HUNTER (W. W.)—The Indian Empire. Its History, People and Products. London (Trubner): 1882. pp. 568.

LAW (N. N.)—Studies in Ancient Hindu Polity. London (Longmans): 1914. pp. vii+203.

MATTHAI (J.)—Village Government in British India. London: 1916. pp. xxiii+211.

MORELAND—India at the Death of Akbar. London (Macmillan): 1920. pp. xi+328.

MUKERJI (R.)—Local Government in Ancient India.

SARKAR (B. K.)—The Positive Background of Hindu Sociology. Allahabad (Panini Office): 1914. pp. xxiv+365.

SARKAR (B. K.)—The Sukraniti. Allahabad (Panini Office) 1914. pp. ii+270+xxiv.

SARKAR (B. K.)—Hindu Economics, Politics and Sociology. Allahabad (Panini Office).

SARKAR (Jadunath)—Mughal Administration. Calcutta (Sarkar and Sons): 1920. pp. iv+152.

SAMADDAR (J. N.)—Notes on Economic History of Early India. A Reprint from the "Journal of the Bihar and Orissa Research Society." Patna (Government Press). pp. 30.

THAKORE (B. K.)—Indian Administration to the dawn of Responsible Government. Bombay (Taraporewala).

4.—RURAL ECONOMY AND AGRICULTURE

A BENGAL CIVILIAN—Agricultural and Administrative Reform in Bengal. London: 1883.

- BY A WELL WISHER (*i.e.* Roy, Lalit Mohan)—*Degradation of Bengal Zemindar.* Calcutta : 1893.
- AGARWALA (M. L.)—*The N. W. P. Tenancy Act.* Allahabad : 1914. pp. xxxv + vii + 487 + iv.
- BRIJ MOHAN LAL BAJPAI—*Indian Agriculture.* Lucknow : 1902.
- BHUPAL CHANDRA BASU—*Notes on Indian Agriculture.* Calcutta : 1893.
- BEVERIDGE (H.)—*Statistics of Agriculture in Bengal.* Calcutta : 1868.
- BADEN POWELL—*The Origin and Growth of Village Communities in India.* London : 1899. pp. vi + 155.
- BADEN POWELL—*The Indian Village Community.* London : 1896. pp. xvi + 456.
- CALVERT (H.)—*The Wealth and Welfare of the Punjab, being some studies in Punjab Rural Economics.* Lahore (Civil and Military Gazette Office): 1922. pp. xiii + 224 + v.
- CARSTAIRS (R.)—*Human Nature in Rural India.* Edinburgh : 1895.
- CORBLETT (Lt. Col. A. F.)—*Notes on Agriculture and Sanitation.* Allahabad : 1868.
- CHATTERTON (Alfred)—*Agricultural and Industrial Problems in India.* Madras : 1900. pp. iv + 174.
- CLOUSTON—*A Reader for Agriculturists old and young.*
- CLAYTON (H.)—*Rural Development in Burma.* pp. 114.
- DUBEY (D. S.)—*The Way to Agricultural Progress.* Calcutta (Thacker Spink) : 1921. pp. 78.
- DUTHIE (J. F.) and Fuller (J. B.)—*Field and Garden Crops of the N. W. Provinces and Oudh with illustrations.*
- FRAZER (A. G.)—*Village Education in India.* Roorkee.
- FULLER (J. B.)—*An Agricultural Primer.* Nagpur : 1903. pp. viii + 103.
- FENWICK (C. A.)—*Essay on the Colonization of Hindustan by East Indians.* Calcutta : 1828.
- GANGULEE (N. N.)—*The War and Agriculture.* Madras (Commonweal Office) : 1919. pp. viii + 108.

- GUNN (W. D.)—Cattle of Southern India. Madras : 1909.
- GANGA RAM (Rai Bahadur)—Punjab Agricultural Proverbs and their Scientific Significance (A Lecture). Lahore (Khosla Bros.) : 1920. pp. 37.
- GANGA RAM (Rai Bahadur)—The Agricultural Problem of India. Simla : 1917. pp. iv+155.
- GILLING—Fodder in India.
- GREENWAY (Lieut.-Col. T.)—Farming in India considered as a pursuit for European settlers of a superior class. London : 1864.
- HARMAN (F. E.)—The Agricultural Condition of Mysore, Prior to the Famine of 1876-77. Madras : 1877.
- HOWARD—Wheat in India. Calcutta (Thacker, Spink & Co.) : 1916. pp. vii+288.
- HUME (A. O.)—Hints on Agricultural Reform in India. Calcutta : 1879.
- JACK (J. C.)—The Economic Life of a Bengal District. Oxford : 1916.
- JEVONS (H. S.)—Consolidation of Agricultural Holdings. (Bulletin No. 9, Economics Department) Allahabad : 1919. pp. 54.
- JEVONS (H. S.)—Economics of Tenancy Law and Estate Management. (Bulletin No. 17, Economics Department) Allahabad : 1921. pp. vii+114.
- JUDHAYA (K.)—Call to India, England and Empire, or the Reconstruction of Indian Agriculture.
- KEATINGE (G.)—Agricultural Progress in Western India. London (Longmans) : 1921. pp. 158.
- KEATINGE (G.)—Rural Economy in the Bombay Deccan. London : 1912. pp. xiv+212.
- KENNY (J.)—Intensive Farming in India. Madras : 1912. pp. 585.
- LEAKE (H. M.)—Agricultural Practice and Economics in the United Provinces, India. Cambridge (Heffer & Sons) : 1921. pp. viii+277.
- MACKENNA (J.)—Agriculture in India. Calcutta : 1915. pp. 105.

- MAINE (H. S.)—Village Communities in the East and West. London : 1871. pp. vi+226.
- MANN (Dr. H. H.)—Land and Labour in a Deccan Village. Bombay (University) : 1917. pp. v+184.
- MANN (Dr. H. H.)—Life and Labour in a Deccan Village. Bombay : 1917.
- MARTINI (E.)—Hand-book of Agriculture in Burma. Rangoon : 1881.
- MATTHAI JOHN—Village Government in British India. London : 1916. pp. xxiii+211.
- MITRA (Kishori Chand)—Agriculture and Agricultural Exhibitions in Bengal. Calcutta : 1865.
- MITRA (Pyari Chand)—Agriculture in Bengal. Calcutta : 1881.
- MEAGHER (Major) & VAUGHAN—Dairy Farming in India. Calcutta (Government Press) : 1904. pp. 157.
- MOLLISON (J.)—A Text Book on Indian Agriculture. Bombay. pp. v+177.
- MORELAND (W. H.)—The Agriculture of the United Provinces. Allahabad (Government Press) : 1912. pp. viii+239+xviii.
- MOTILAL KUSHAL CHAND SHAH—The Principles of Agriculture in India. Ahmedabad : 1888.
- MUKHERJI (N. G.)—Handbook of Indian Agriculture. 3rd ed. Calcutta. pp. xiv+620.
- NIHAL SINGH (Mrs. Saint)—The Improvement of Indian Agriculture. Madras. pp. 163.
- PONSON (Lieut.-Col.)—Manual of Agriculture for India. Calcutta : 1883. pp. 296.
- PRATT (H.)—Bengal Planters and Ryots. London : 1862.
- ROBERTSON (W. R.)—Modern Agriculture and What Modern Agriculture can do for the Indian Farmer. Madras : 1893.
- ROBERTSON (W. R.)—An Agriculture Class book for the Use of Schools in South India. Madras : 1880.
- ROBERTSON (W. R.)—Agriculture in Madras. Madras : 1881.

- RAY (S. C.)—Agricultural Indebtedness in India ; and its remedies. Calcutta : 1915. pp. vi+468.
- RAMKRISHNA (T.)—Life in an Indian Village. London : 1912. pp. 188.
- RAM SANKAR LAL—A Scheme for the Improvement of Agriculture ; and a few suggestions in connection with the Land Revenue Policy of Government. Lucknow : 1882.
- SAYANI (S. R.)—Agricultural Industries in India. Madras : 1910. pp. 91.
- SCINDHIA MAHADEV RAO (Maharaja of Gwalior)—Zamindar Hitkari (English). Gwalior : 1917. pp. 311.
- SLATER (G.)—Some South Indian Villages. Madras (Oxford University Press) : 1918. pp. 265.
- SUKHDEB (Pandit, Rao Bahadur)—A Brief Note on Agricultural Indebtedness. Allahabad : 1896.
- SHORTT (J.)—A Manual of Indian Agriculture. Madras : 1889.
- SCHROTTKY (E. C.)—The Principles of Rational Agriculture applied to India and its Staple Products. Bombay : 1876.
- SMITH (F.)—Principles of Agriculture for Bengal.
- TALCHERKER (V. A.)—Our Village Economics and its reorganisation. Indore (Dept. of Commerce and Industries.)
- VÖELCKER (J. A.)—Report on the Improvement of Agriculture. Calcutta (Government Press) : 1897. pp. xxxii+544.
- WOOD (R. Cecil)—A Note Book of Agricultural Facts and Figures.
- WILLIAMS (Maj. A. C.) and MEAGHER (Maj. D. J.)—The Farm Manual. Calcutta : 1893.
- WEDDERBURN (W.)—The Village Panchayat. London : 1878. pp.
- WILLIS (J. C.)—Agriculture in the Tropics. Cambridge : 1914. pp. viii+220.

5.—EXTRACTIVE INDUSTRIES (OTHER THAN AGRICULTURE) AND NATURAL RESOURCES

- BY A CIVIL SERVANT—Summary Remarks on the Resources of the East Indies: Intended as a contrast to the pamphlet of Mr. T. Law entitled 'Rising Resources.' London: 1794.
- AIYAR (K. V. Ganpati)—Indian Industrialism. Madras (Tagore & Co.).
- BALL (V.)—Coal Fields of India (Memoirs of Geological Survey of India). Calcutta: 1913. pp. 146+xliii.
- BROWNE (F. C.)—The Supply of Cotton from India. London: 1863.
- BONAVIA (Dr. E.)—Sericulture in Oudh. Lucknow: 1864.
- BOYLE (Dr. J. F.)—Essays on the Productive Resources of India. London: 1840.
- COLA (P. R.)—How to Develop the Productive Products of India. London (Virtue & Co.): 1867. pp. xii+350.
- GEOGHEGAM (J.)—Silk in India. Calcutta: 1872.
- GORE (M.)—Lecture on the Products and Resources of British India. London: 1855.
- HOLLAND (Sir T. II.)—Sketch of Mineral Resources of India. Calcutta: 1908.
- HOLLAND (Sir T. H.)—Indian Jute and Silk (Report on Indian Trade). London (John Murray).
- HOLLAND (Sir T. H.)—Indian Timbers and Paper Materials (Report). London (J. Murray).
- LAW (T.)—A Sketch of Some Late Arrangements and a View of the Rising Resources in Bengal. London: 1792.
- M'CANN (H. W.)—Report on the Dyes and Tans of Bengal. Calcutta (Bengal Secretariat Press): 1883. pp. vi+214.
- MUKERJI (T. N.)—A Hand-book of Indian Products (Art, Manufactures and Raw Materials).
- NITYA GOPAL MUKHOPADHYA—A Bird's eye view of Indian Sericulture. Calcutta: 1907.
- NIBARAN CHANDRA CHAUDHURI—Jute in Bengal. Calcutta: 1908.

PANDIT (Y. G.)—Report of the Oil Pressing Industry of the Bombay Presidency.

PASCOE (E. H.)—The Mineral Products of India during 1919. (in Records of Geological Survey of India) Annual.

PEARSON (R. S.)—Commercial Guide to the Forest Economic Products of India.

POWELL (B. H.)—Hand-book of the Economic Products of the Punjab. Vol. I. Roorkee (T. E. College): 1868. pp. xxxv+609+xc.

POWELL (B. H.)—Hand-book of the Economic Products of the Punjab. Vol. II. Roorkee (T. E. College): 1868. pp. xxvi+358+xxxv.

RIBBENTROP (B.)—Forestry in British India. Calcutta: 1900.

ROYLE (J. F.)—Essay on the Productive Resources of India. London (Allen): 1840. pp. vii+451.

ROYLE (J. F.)—The Fibrous plants of India fitted for cordage, clothing and paper with an account of the cultivation and preparation of Flax, Hemp and their substitutes. London (Smith Elder & Co.): 1855. pp. x+403.

Sylviculture. A concise Manual for the use of Forestry students in India.

SARAT CHANDRA MITRA—Arboriculture and Horticulture in Ancient and Mediæval India. Bombay: 1907.

SPRY (H. H.)—Modern India; with illustrations of the resources and capabilities of Hindustan. London: 1837.

VAKIL (R. M.)—The old Industry in India. Bombay (Taraporewala).

WATTS—Notes from Dictionary of Economic Products of India.

WATT (Sir George Watt)—The Commercial Products of India. London (J. Murray): 1908. pp. 118.

WATSON (J.)—Textile Manufactures and the costumes of the People of India. London (Allen): 1867. pp. xxi+173.

6.—MANUFACTURING INDUSTRIES

- A true relation of the Rise and Progress of the East India Company showing how their manufactures have been, are, and will be prejudicial to the manufactures of England. London : 1700.
- AMBRAVANSWAR (S.)—Progress and Problems of Industrial India. India (Brahmanand Press). pp. 30.
- ALAKHIDHARI—Prospects of developing the Iron and Steel Industry in Gwalior. Gwalior (Alijah Durbar Press) : 1918. pp. iv+48 with App.
- BALD (Claude)—Indian Tea. Calcutta : 1908.
- BIRDWOOD (Sir G. C. M.)—The Industrial Arts of India. London : 1880. Part I, pp. 130.
- BARLOW (G.)—Industrial India. Madras : 1911. pp. 203.
- BAILDON (S.)—The Tea Industry of India. London : 1882. pp. iv+248.
- BALKRISHNA—The Industrial Decline in India. Allahabad : 1917.
- CASSELS (W. R.)—Cotton, an account of its culture in the Bombay Presidency. Bombay. pp. 408.
- CHARLES (A. P.)—A Monograph on Gold and Silver Ware produced in the United Provinces. Allahabad (Govt. Press) : 1905. pp. 44.
- CHATTERTON (Alfred)—Lift Irrigation. Madras : 1915. pp. iv+354.
- CHATTERTON (Alfred)—Note on Industrial Work in India. Madras : 1905.
- CHATTERTON (Alfred)—Industrial Evolution in India. Madras : 1912. pp. 369.
- CHATTERTON (Alfred)—Agricultural and Industrial Problems in India. Madras : 1904. pp. ii+174.
- CHATTERJEE, (A. C.)—Notes on the Industries of the United Provinces. Allahabad : 1908.
- CLARK (W. A. Graham)—Cotton Fabrics in British India and the Phillipines. Washington : 1907.
- COOMARASWAMI (A. K.)—The Arts and Crafts of India and Ceylon. London : 1913.

- COOMARASWAMI (A. K.)—The Indian Craftsman. London : 1909. pp. xv+130.
- COOMARASWAMI (A. K.)—Art and Swadeshi. Madras : 1912.
- Cotton. Reports and Documents connected with the Proceedings of the East Indian Company in regard to the Culture and Manufacture of Cotton, Wool, raw Silk, and Indigo in India. London : 1836. pp. xxvii+431+xlili+223+viii+96.
- CROSTHWAITE (H. S.)—Monograph on Stone-Carving in the United Provinces. Allahabad (Government Press) : 1906. pp. 33.
- DAMPIER (G. R.)—A Monograph on the Brass and Copper Wares of the North Western Provinces and Oudh. Allahabad (Government Press) : 1899. pp. 40.
- DEOLE (C. S.)—The State in Relation to Indian Industries. Bombay : 1916. pp. 27.
- DARRAH (H. Z.)—Notes on the Assam manufactures for the year 1884-85. Shillong : 1885.
- DUTT (Romesh Chandra)—Indian Trade, Manufactures and Finance. Calcutta : 1905.
- DOBBS (H. R. C.)—Monograph on the Pottery and Glass Industries of the North Western Provinces and Oudh. Allahabad (Government Press) : 1895. pp. iix+44+ii.
- DOBBS (W. E. J.)—Monograph on Iron and Steel works in the United Provinces of Agra and Oudh. Allahabad (Government Press) : 1895. pp. 29.
- Education and Industry in India, 1919-20 (Survey of Educational and Industrial movements in India in 1919-20). Calcutta (Annual Register Office).
- GHOSH (Henry. H.)—The Advancement of Industry. Calcutta : 1910. pp. ix+222.
- GHOSH (Henry H.)—Handloom Weaving, with Suggestions for the Improvement of the Industry in India. Calcutta : 1906.
- GANGULI (G. D.)—The Art Industries of the United Provinces. Allahabad : 1906.
- GAMMIE (J. A.)—The Indian Cotton. Calcutta : 1905.

- HADI (S. A.)**—The Sugar Industry of the United Provinces of Agra and Oudh. Allahabad (Government Press): 1902. pp. iii+112.
- HADI (S. Mohammad)**—A Monograph on Dyes and Dyeing in the North Western Provinces and Oudh. Allahabad (Government Press): 1899. pp. 2+97+v.
- HAVELL (E. B.)**—An Essay on Indian Art, Industry and Education: Madras. pp. 196.
- HAVELL (E. B.)**—The Basis for Artistic and Industrial Revival in India. Adyar: 1912.
- HAVELL (E. B.)**—Handloom Weaving in India. Calcutta: 1905. pp. 24.
- HORNELL (James)**—The Chank Bangle Industry. Calcutta: 1913.
- Indian Industrial Commission (Report)**. Calcutta (Supt. Government Printing, India): 1918. pp. xx+355+xviii. Also 5 Volumes of Minutes of Evidence and Appendices.
- Industrial Handbook 1919** (Indian Munitions Board). Calcutta (Supt. Government Printing, India): 1919. pp. iv+417.
- JAGANNATH SAHAYA**—A Survey of Indian Handlooms. Arrah: 1910.
- JAGDISH PRASAD (Kunwar)**—Monograph on Carpet-making in the United Provinces. Allahabad (Government Press): 1907. pp. 62+4.
- JAMES (A. G. F. E.)**—Indian Industries. London: 1880.
- KEENE (H. G.)**—Note on the Stone Industries of Agra. Mirzapur: 1873.
- Land Revenue Policy of the Indian Government** (Published by the G. G. of India in Council). Calcutta (Government Press): 1902. pp. vi+72.
- Land Revenue Policy of the Indian Government** (Published by the G. G. of India in Council). Calcutta (Government Press): 1902. pp. vi+72.
- LATIFI (A.)**—The Industrial Punjab. Bombay: 1911. pp. xxvii+304.

MAFFEY (J. L.)—Monograph on Wood-carving in the United Provinces of Agra and Oudh. Allahabad (Government Press): 1903. pp. 1903.

MUKERJI (N. G.)—A Monograph on the Silk Fabrics of Bengal. Calcutta (Government Press): 1903. pp. ii+146.

NOEL (FREDERICK PATON)—Notes on Sugar in India. Calcutta: 1911.

NOEL (FREDERICK PATON)—Indian Cotton Seed. Its Industrial possibilities. Calcutta: 1908.

PIM (A. W.)—A Monograph on Woolen Fabrics produced in the N. W. Provinces. Allahabad (Government Press): 1898. pp. 2+17.

PRAMATHA NATH BASU—Essays and Lectures on the Industrial Development of India and other Indian Subjects. 1880-1906. Calcutta: 1906.

ROYLE (J. F.)—On the Culture and Commerce of Cotton in India and Elsewhere with an account of the experiments made by the Hon'ble East India Company up to the present time. London.

RAKSHIT (N. N.)—Industrial Outlook for India. Calcutta (Majumdar & Co.).

SAHA (R. N.)—Romance of Pen Industries. Calcutta: 1911.

SILBERRAD (C. A.)—A Monograph on Cotton Fabrics produced in the N. W. Provinces and Oudh. Allahabad (Government Press): 1898. pp. 2+68.

STUBBS (L. M.)—A Monograph on Ivory Carving in the N. W. Provinces and Oudh. Allahabad (Government Press): 1800. pp. 14.

TRAILAKSYA NATH MUKHOPADHAYAYA—Art manufactures of India. Calcutta: 1888.

TOZER (H. J.)—Manufactures of India.

WALTON (H. G.)—A Monograph on Training and Working in Leather in the United Provinces of Agra and Oudh. Allahabad (Government Press): 1903. pp. 28.

YUSUF ALI (A.)—A Monograph on Silk Fabrics produced in the N. W. Provinces and Oudh. Allahabad (Government Press): 1900. pp. iii+112.

7.—TRADE AND COMMERCE

AINSCOUGH—British Trade in India.

Note on the External Commerce of Bengal. Calcutta : 1848.

Industrial and Commercial Bengal. Calcutta : 1908.

Indian Wheat *versus* American Protection ; or the influence on English trade and American protection of the development of India. Calcutta : 1883.

On the Territorial Government and Commerce of the East India Company. London : 1829.

Commerce and Colonization of India. London : 1828.

Thoughts on the Political and Commercial connection between Great Britain and Hindustan as at present under the consideration of Parliament. London : 1814.

The East India Trade, a most profitable trade to the Kingdom. London : 1677.

Indian Records, with a Commercial view of the relations between the British Government and the Nawab's Nazim of Bengal, Bihar and Orissa. London : 1870.

A MERCHANT OF LONDON—Some Thoughts on the Present State of Our Trade to India. London : 1754.

Swadeshi Movement : a Symposium. Views of representative Indians and Anglo-Indians. Madras : 1913.

BOWERS (Capt. A.)—Bhamo Expedition, Report on the practicability of re-opening the trade route between Burma and Western China. Rangoon : 1869.

BRIGGS (Major-General J.)—The Cotton Trade of India. 1840.

BRUCE—Trade in the East Indies.

BROWN (F. C.)—Free Trade ; the Cotton Question with reference to India, being a memorial from the British merchants of Cochin, to the President of the Board of Control. London : 1847.

- CHAPMAN (J.)—The Cotton and Commerce of India ; considered in relation to the interests of Great Britain. London : 1851.
- COATES (W. H.)—The Old Country Trade of the East Indies. London : 1911.
- COKE (ROGER)—A Treatise Concerning the Regulation of the Coin of England, and how the East India Trade may be Preserved and Increased. London : 1696.
- COLEBROOKE (H. T.)—Remarks on the Husbandry and Internal Commerce of Bengal. Calcutta : 1806.
- COTTON—Handbook of Commercial information for India. Calcutta (Supt. Government Printing, India) : 1919. pp. viii+383.
- COTTON—Commercial Law in British India (Tagore Law Lectures 1910). London (Butterworth & Co.) : 1912. pp. lxxx+746+cl+vi.
- COUBROUGH (A. C.)—Notes on the Indian Piece Goods Trade. (Bulletins of Indian Industries and Labor No. 16). Calcutta (Supt. Govt. Printing, India). 1922.
- CRAWFURD (John)—A View of the Present State and Future Prospects of the Free Trade and Colonization of India. London : 1829.
- CRAWFURD (Q.)—Researches concerning the Laws, Theology, Learning, Commerce, etc., of Ancient and Modern India. London : 1817.
- DAVENANT (Charles)—An Essay on the East India Trade. London : 1696.
- DIHANAJIBHAI D. DADI—Observations on the Management of Cotton Mills and Suggestions for Amendments in the Indian Company's Act. Bombay : 1894.
- DUTT (S. C.)—Compulsory Sales in British India. Calcutta (Miller & Co.) : 1915. xlii+402.
- ELMORE (H. M.)—The British Mariner's Directory and Guide to the Trade and Navigation of the Indian and China Seas, with an account of the Trade and Customs of the Natives. London : 1804.

- EVANS (Lieut.-Col. de L.)—On the Practicability of an Invasion of British India; and on the commercial and Financial projects and resources of the Empire. London : 1829.
- GAJJAR (M. T.)—A Scheme for Industrial Fellowships for India. Bombay. pp. 32.
- GRAHAM (A.)—The Means of Ameliorating India Deduced from Personal Observations, more specially the Useful Employment of British Subjects and Capital in that Country, etc. Glasgow : 1835.
- HENCHMAN (T.)—Observations on the Reports of the Directors of the East India Company, respecting the Trade between India and Europe. London : 1801.
- HILLS (S. C.)—Three Frenchmen in Bengal; or the commercial ruin of the French Settlements in 1757. London : 1903.
- Inland Trade Rail and River-borne (published annually by the Department of Statistics, Calcutta). Calcutta (Supt. Government Printing, India).
- IRVING (B. A.)—The Commerce of India. London : 1858.
- JWALA NATH—Commercial Hindustani: A Collection of practical commercial phrases.
- LETHBRIDGE (Sir Roper)—Indian Industry and Commerce—the lessons of the War. From the Asiatic Review—July, 1916. pp. 26.
- LOCKYER (C.)—An Account of the Trade in India. London : 1711.
- LOW (C. R.)—History of the Indian Navy (1613-1863). London : 1877.
- MARTIN (R. M.)—British Relations with the Chinese Empire in 1832. London : 1832.
- MARTIN (R. M.)—The Progress and Present State of British India. London : 1862.
- MARTIN (R. M.)—The Political, Financial and Commercial condition of the Anglo-Eastern Empire, in 1832.

- MACLEAN (Dr. C.)**—A View of the Consequences of Laying Open the Trade to India, to Private Ships : with some Remarks on the Nature of the East India Company's Right to their Territories, and the Trade depending on them, etc. London : 1813.
- MACAULAY (T.)**—The Indian Traders' Complete Guide. Calcutta : 1816. pp. xii+113.
- MUKADAM (G. S.)**—Belgium and her Commercial Development, or "Indian trade with Belgium."
- MACMINN (C. W.)**—Indian Trade and Bullion Import in the 18th Century. Calcutta : 1904.
- MILBURN (W.)**—Oriental Commerce. London : 1813.
- MACPIERSON (D.)**—The History of the European Commerce with India. London : 1812.
- MALLIK (Krishna Mohan)**—A Brief History of Bengal Commerce, from the year 1814 to 1870. Calcutta : 1871-72.
- NORTH (Sir D.)**—Considerations on the East Indian Trade. London : 1856.
- Open Trade to India : Opinion of the late Lord Melville and Marquis Wellesley.
- OPPERT (G.)**—On the Ancient Commerce of India. Madras and London : 1879.
- PHIPPS (J.)**—A Practical Treatise on the China and Eastern Trade. Calcutta : 1835.
- PRINSEP (John)**—Suggestions on Freedom of Commerce and Navigation, more especially with reference to the East Indian trade. London : 1823.
- PRINSEP (G. A.)**—Remarks on the External Commerce and Exchanges of Bengal. London : 1823.
- RAYNAL (G. T. F.)**—A Philosophical and Political History of the Settlement and Trade of Europeans in the East and West Indies, etc. Edinburgh : 1782.
- ROBERTSON (W.)**—An Historical Disquisition Concerning the Knowledge which the Ancients had of India ; and the progress of trade with that country prior to the discovery of the passage to it by the Cape of Good Hope. Basel : 1792.

- RADHAKUMUD MUKHERJI**—Indian Shipping: a history of the Sea-borne trade and maritime activity of the Indian from the earliest times. London: 1912. pp. xxvii, 256.
- ROBINSON (F. P.)**—The Trade of the East India Company, from 1709 to 1813. Cambridge: 1912.
- SCHOFF (WILFRED H.)**—Translated from the Greek and annotated by)—A Merchant of the First century—The Periplus of the Erythraean Sea. Travel and Trade in the Indian Ocean. London: 1912. pp. 323.
- SETT (Sontosh Nath)**—Sett's Guide to Commercial Places. Chandernagore (Sett).
- SETT (Sontosh Nath)**—Traders' Friend. Chandernagore (Sett): 1921.
- STEVENS (R.)**—The New and Complete Guide to the East Indian Trade, etc. London: 1775.
- SMITH (S.)**—The Cotton Trade of India. London: 1863.
- TOZER (H. J.)**—British India and its Trade. London and New York: 1912. pp. viii+90.
- VINCENT (Rev. W.)**—The Commerce and Navigation of the Ancients in the Indian Ocean. London: 1807.
- WACHA (D. E.)**—Indian Commerce and Statistics. Bombay: 1915.
- WELD (W. E.)**—India's demand for Transportation. New York (Columbia University). 1921.
- WILSON (B.)**—Ledger and Sword; or the Honorable Company of Merchants of England trading with the East Indies—1599-1874. London: 1903.
- WILSON (H. H.)**—A Review of the external Commerce of Bengal from 1813-14 to 1827-28. Calcutta (Baptist Mission Press): 1830. pp. 1+98+ii.
- WYLIE (M.)**—India as a Field for Commerce and Missions. London: 1857.
- WYLIE (M.)**—The Commerce, Resources and Prospects of India. London: 1857.

8.—LABOR PROBLEMS

Bombay, as it was in 1668 and as it is in 1878. An appeal for Labourers. London ; 1879.

ARUNDEL (Sir A. T.)—Irrigation and Commercial Labour in the Madras Presidency. Madras : 1879.

BUCKINGHAM (J.)—Tea-garden Coolies in Assam. Calcutta : 1894.

CLOW (A. G.)—Indian Factory Law Administration. (Bulletin of Indian Industries and Labor, No. 8). Calcutta (Supt. Govt. Printing, India) : 1921.

DUTT (R. C.)—Reminiscences of a Workman's life. Calcutta : 1896.

GHOSH (Probohdh Chandra)—The Legal aspects of Strikes, the course, efficiency, and justification of Legislation to prevent them.

GILCHRIST (R. N.)—Conciliation and Arbitration. (Bulletins of Indian Industries and Labour No. 31) Calcutta (Supt. Government:Printing, India) : 1922.

JOUBERT (J.)—Australia as a Field for Indian Emigration. Calcutta : 1884.

KYDD (J. C.)—A History of Factory Legislation in India. Calcutta (University) : 1920. pp. viii+190.

PRIDEAUX (W. H. C.)—A guide to the Indian Factories Act. Calcutta (Thacker Spink) : 1917. pp. xxv+126.

PANDAY (C. Dorabji)—Cotton Mill Labour in India. Hours of Work. By a Mill Manager. Bombay : 1906.

ROGERS (Maj. B.)—Industrial Labour in Establishments for Criminals in India. London : 1872.

VARMA (P. M. L.)—The Labour Problem, and its complete solution by a complete Co-operation and Co-ordination between Capital and Labour. Budaun, U. P. (Gokul Publishing House) : 1922. xv+188+x.

WEST (E.)—Emigration to British India. London : 1857.

WADIA (B. P.)—Labour in Madras. Madras (Ganesh & Co.) : 1921. pp. 240.

9.—FAMINE AND POVERTY

The Indian Problem Solved. The ways to prevent famines and advance the material progress of India. London (Spalding) : 1916. pp. xvi+395.

Pictorial Tour Round India ; with remarks on India past and present : alleged and true causes of Indian poverty --supposed or real ; twelve means available for promoting the wealth of the country. Madras : 1888.

British Policy Respecting Famines in India. Bombay : 1874.

Famine in the North-West. Calcutta : 1878.

Indian Famine Commission. The Madras Solution, or a set of answers to the questions of the commission, with reference to the condition of the Madras Presidency. Madras : 1878.

A SOJOURNER---Notes on the Indian Famine of 1877. Calcutta : 1877.

AN INDIAN CIVILIAN Mr. Dutt and Land Assessments. A reply to Mr. R. C. Dutt's Book on Famines in India. Calcutta : 1901.

ABHAYACHARAN DAS---The Indian Ryot. Land Tax, Permanent Settlement and the Famine. Howrah : 1881.

AHMAD (S. D. H.)---Population and Food : famine and fixity of tenure. Calcutta : 1910.

BARODA, GAEKWAR OF (Sir Sivaji Rao)---Notes on the Famine Tour by His Highness the Maharaja Gackwar. Edinburgh : 1901.

BLAIR (C.)---Indian Famines. London : 1875. pp. xv+240.

BROWNE (Alfred H.)---The Political Economy of Indian Famines. Bombay : 1877.

BIRKMYRE (W.)---The Wealth of India and the Hindrances to its Increase. Glasgow : 1890.

COUPER (Sir G. Bart)---Sir George Couper and the Famine in the North Western Provinces. Calcutta : 1878.

COTTON (Major General Sir A.)---The Famine in India. London : 1866.

- DACOSTA (J.)—Facts and Fallacies Regarding Irrigation as a Prevention of Famine in India. Calcutta : 1878.
- DADABHAI NAOROJI—Poverty of India. Bombay : 1873, 1876.
- DADABHAI NAOROJI—Poverty and Un-British rule in India. London : 1901. pp. xiv+675.
- DIGBY (W.)—‘Prosperous’ British India. A revelation from official records. London (T. Fisher Unwin): 1901. pp. xiv+651.
- DIGBY (W.)—The Famine Campaign in Southern India, Madras, and Bombay Presidencies and Province of Mysore, 1876-78. London : 1878.
- DUBEY (D. S.)—A Study of Indian Food problem. (Indian Journal of Economics, July, 1920, and January, 1921).
- DUTT (R. C.)—Famines and Land Assessments in India. London : 1900.
- ELIOT (Sir J.)—Droughts and Famines in India.
- FORREST (G. W.)—The Famine in India. London : 1897.
- FRERE (Right Hon. Sir H. B. E.) On the Impending Bengal Famine : how it will be met and how to prevent future famines in India. London : 1874.
- HARE (W. L.)—Famine in India : its causes and effects. London : 1901.
- HYNDMAN (H. M.)—The Indian Famine and the Crisis in India. London : 1877.
- HUNTER (Sir W. W.)—Famine Aspects of Bengal Districts. London : 1874.
- HALY (Col. George Thomas)—Appeal for the Sufferers by the Present Famine in Orissa. London : 1866.
- KAILAS CHANDRA KANJILAL—An Essay on the Poverty of India. Hugli : 1893.
- LOVEDAY (A.)—The History and Economics of Indian Famines. London : 1914. pp. ix+163.
- MACMINN (C. W.)—Famine Truths—Half Truths, Untruths. Calcutta : 1902.
- MOTIWALA (B. N.)—The Beggar Problem in Bombay. Bombay (Social Service League).

- MURDOCH (J.)—India : Past and Present. Including, Is India becoming rich or poorer ? Madras : 1903.
- NASH (V.)—The Great Famine and its Causes. London : 1900.
- O'DONNELL—The Ruin of an Indian Province. An Indian Famine explained. London : 1880.
- PHIPSON—India's difficulties—Some way out of them ; or Indian Poverty and Indian Famines.
- PHILLIPS (H. A. D.)—A Blacker Pamphlet : or an attempt to explain the severity of the Famine and the causes of the poverty of the Madras Ryot. Madras : 1878.
- RAY (PRITHWIS CHANDRA)—Indian Famines, their Causes and Remedies. Calcutta : 1901.
- RAY (PRITHWIS CHANDRA)—The Poverty Problem in India. Bombay, London : 1895.
- RAY (PRITHWIS CHANDRA)—The Poverty Problem in India. Calcutta (Thacker Spink & Co.) : 1895. pp. ii+342.
- RAY (Satish Chandra)—Economic Causes of Famines in India ; and suggestions to prevent their frequent recurrence. Calcutta : 1909.
- REES (J. D.)—Famine Facts and Fallacies. London : 1901.
- SCOTT (Rev. J. E.)—In Famine Land. Observations and Experiences in India, During the Great Drought of 1899-1900. New York and London : 1904. pp. 205.
- SMITH (G.)—(Prefaced by)—A Fortnight in the Famine Country of Bengal. March 1874. Serampur : 1874.
- SMITH (Col. R. Baird)—Col. Baird's Report on Famine. Calcutta : 1861.
- THOMAS (H. S.)—Fisheries *vs.* Famine. Simla : 1879.
- “UBIQUE”, (*i.e.*, Parker Gilmore)—The Black Pamphlet. Famine of 1874. Calcutta : 1875.

10.—CO-OPERATION

- ALAKH DHARI—The Progress of the Co-operative Movement in India.

- ALAKH DHARI**—Co-operative credit in Gwalior State Lucknow (Newul Kishore): 1915. pp. 143.
- BAMA (R. R., K. L.)**—Manual of Co-operative Societies in Assam. Assam (Secretariat Press).
- CALVERT (H.)**—The Law and Principles of Co-operation in India. 2nd. ed. Calcutta: 1921. viii+241.
- CROSTHWAITE (H. R.)**—Co-operation. Comparative Studies and the Central Provinces System. Calcutta (Thacker Spink): 1916. pp. xii+542.
- DARLING (M. L.)**—Some Aspects of Co-operation in Germany, Italy and Ireland (with applications to India). Lahore (Supt. of Govt. Printing): 1922. pp. xiv+191+xii.
- DUPERNEX (H.)**—Peoples' Banks for Northern India. Calcutta: 1900. pp. x+288.
- DUPERNEX (H.)**—Village Banks: how to organise them and how to work them. Allahabad: 1901.
- ENGLISH (A. E.)**—A Handbook of Co-operative Credit for Burma. Rangoon: 1911.
- EWBANK (R. B.)**—A Manual of Co-operative Societies in the Bombay Presidency.
- GHOSH (Hemanta-Kumar H.)**—Theory of Co-operative Credit. Calcutta: 1915. pp. xii+212+xliv.
- GOVINDSWAMY IYER (P. W.)**—Co-operative Societies.
- JAGAT NARAYAN BASU**—Village Banks in India. Calcutta: 1901.
- MUKHERJI (P.)**—The Co-operative Credit Movement in India. Calcutta: 1914. pp. iv+156.
- MUKHERJI (P.)**—The Co-operative Movement in India. 2nd. ed. Calcutta: 1917. pp. xxi+453.
- MUKHERJI (P.)**—On Co-operative Credit Societies or Peoples' Banks. Calcutta: 1910.
- MURDOCH (J.)**—Inadequacy of Agricultural Banks to meet the Needs of India. London and Madras: 1903.
- NICHOLSON (Sir F. A.)**—Report regarding the possibility of Introducing Land and Agricultural Banks into the Madras Presidency. 2 Vols.

RAY (Parbati Sankar Chadhri)—Note on Dharma Gola ; or, a system of co-operative corn banks for prevention of Famine. Calcutta : 1901.

STRICKLAND (C. F.)—An Introduction to Co-operation in India (India of Today Series). Bombay (H. Milford Oxford University Press): 1922. pp. 75.

STRICKLAND (C. F.)—Studies in European Co-operation (with a chapter on Co-operation in the Punjab). Lahore (Supt. Govt. Printing, Punjab): 1922, pp. ii+166+v.

WEDDERBURN (Sir W.)—Agricultural Banks for India. Bombay : 1835.

11.—CAPITAL AND BANKING

The Late Government Bank of Bombay. Its History. London : 1868.

Remarks on Savings Banks ; with reference to their extension in the Provinces under the Bengal Presidency. Calcutta : 1840.

Reasons for Establishing a New Bank in India. London : 1836.

Sketch of the Commercial Resources and Monetary and Mercantile System of British India with suggestions for their Improvement, by means of Banking Establishments. London : 1837.

The Imperial Bank of India (a Compilation). Madras (Vast & Co.).

ALAKH DHARI—Indian Banking and State Aid. Allahabad : 1915 pp. 25.

BRUNYATE—History of the Presidency Banks.

BHUTTACHARJEE (R. C.)—The Chartered Bank Case.

COOKE (C. N.)—The Rise, Progress, and Present Condition of Banking. Calcutta : 1863.

DORAISWAMY (S. V.)—Indian Finance, Currency and Banking. Madras : 1915. pp. 176+lxxxii.

EDWARDS (W. H.)—The Indian Companies Act. Calcutta (Thacker Spink): 1915. pp. xii+371.

KHAN (Dr. Shafaat Ahmad)—Ideals and Realities. Part II. pp. xlix+802.

MACDONALD (A. J.)—Banking in India. Native and Private Banking, and the coinage and currency of the country. (Reprinted from the Journal of the Institute of Bankers).

PAL (B. C.)—The New Economic Menace to India. London : 1890.

PEASE (J. G.) and LATTER (A. M.)—The Law of Contract. London (Butterworth) : 1909. pp. lii+416+19.

STRINGFELLOW (H. P.)—Notes on Banking Practice in India. Calcutta : 1897.

TUCKETT (H.)—A Disquisition on the Practice of Usury and on the Corn Monopoly in the Upper Provinces. Calcutta : 1835.

THORBURN (S. S.)—Musalmans and Money Lenders in the Punjab. Edinburgh and London : 1886.

TUCKER (H. St. G.)—Paper relating to the Establishment of the First Public Bank in Calcutta. Calcutta : 1860.

UNDERHILL—Laws of Partnership. London : 1899. pp. xvi+182+18.

12.—CURRENCY AND EXCHANGE

A Career in India, as affected by the continued depreciation of the rupee, and the non-fulfilment of the promises made by the Government. London : 1890.

“**ALIQUIS**”.—A Simple Plan for Circulating throughout India a State Paper Currency. Allahabad : 1869.

BY AN INDIAN OFFICIAL—The Silver Question Reviewed. Calcutta : 1878.

BY AN INDIAN OFFICIAL (R. H. Hollingbery)—A Handbook of Gold and Silver. London : 1878. pp. x+387.

BY AN EX-MADRAS CIVILIAN—A Short Account of the Measures Proposed by the late Colonel J. T. Smith for the Restoration of the Indian Exchange, with an epitome of his reasoning in support of his plan. London : 1882.

- BY AN INDIAN—The Depreciation of Silver. Calcutta : 1886.
- BY A BANKER (J. C.), (Possibly J. Craddock)—Fall in Silver. The question discussed and a fit remedy proposed. Calcutta : 1886. pp.58.
- ALAKH DHARI—The Growth of Currency Organisation in India. Bombay : 1915. pp. lxviii+190.
- ATKINSON (F.)—A Review of the Effect of Low Exchange on the Export Trade of India. Allahabad : 1892.
- ATKINSON (F.)—Mr. Lindsay's Gold Standard Scheme. A criticism. Calcutta : 1898.
- ATKINSON (F.)—The Indian Currency Question. Allahabad 1894 : pp. 50.
- BULL (H.)—A Common Sense view of the Silver question. Calcutta : 1886.
- BARBOUR (Sir D. M.)—The Theory of Bimetallism and the Effects of the Partial demonetisation of Silver on England and India. Calcutta : 1885.
- BARBOUR (Sir D. M.)—The Standard of Value. London : 1912.
- CLIVE (G. W.)—Remarks on the State Paper Currency of India. Calcutta : 1868.
- CLARKE (Hyde)—Gold in India. London : 1881.
- DORAISWAMY (S. V.)—Indian Currency and Finance. Madras : 1916. pp. 176+lxxxii.
- DANIELL (C.)—Gold in the East. Being observations on a practical method of establishing a gold currency in India. London : 1879.
- DANIELL (C.)—Gold Treasure of India. London : 1884. pp.vi+218.
- DANIELL (C.)—The Industrial Competition of Asia. An inquiry into the influence of currency on the Commerce of the Empire in the East. London : 1890.
- DAVIS—A Gold Standard without a Gold Currency. Allahabad : 1892. pp. 6.
- ELLSTAETTER (Karl)—The Indian Silver Currency. Chicago : 1895. pp. x+117.

- FOWLER (W.)—Indian Currency. London : 1899.
- FORBES-MITCHELL (W.)—Bimetallism *versus* Monometallism. Calcutta : 1897.
- GEORGE (E. M.)—The Silver and Indian Currency Questions treated in a Practical Manner. London : 1894.
- GRANT (Sir J. P.)—Indian and British Currency. London : 1890.
- HYNDMAN (H. M.)—The Bankruptcy of India. An enquiry into the administration of India under the Crown, including a chapter on the Silver question. London : 1886.
- HOWARD (H. F.)—India and the Gold Standard. Calcutta : 1911.
- HAMILTON (Rowland)—Currency and Indian Coinage. Bombay : 1869.
- JEVONS (H. Stanley)—The Future of Exchange and the Indian Currency. Bombay (Oxford University Press) : 1922. pp. xi+264 ; Supplement, pp. 7.
- JEVONS (H. Stanley)—Money, Banking and Exchange in India. Simla (Government Central Press) : 1922. pp. iv+330.
- JERVIS (Lieut-Col. T. B.)—The Expediency and Facility of Establishing the Metrological and Monetary Systems throughout India, on a scientific and permanent basis, grounded on an analytical review of the weights, measures and coins of India. Bombay : 1834.
- KALE (V. G.)—Currency Reform in India. Poona.
- KEMMERER (E. W.)—Modern Currency Reforms. A History and discussion of recent Currency Reforms in India, Porto Rico, etc.
- KLEINMANN (E.)—The Gold Standard in India. Paris : 1897.
- KEYNES (John Maynard)—Indian Currency and Finance. London : 1913. pp. vii+263.
- LALLUBHAI (Surajmal)—Is India likely to be happy by the present rate of Exchange. Bombay.

- LINDSAY (A. M.)—A Gold Standard without a Gold Coinage in England and India. A step towards an international monetary system. Edinburgh : 1879.
- A. M. L. (*i.e.*, A. M. Lindsay)—Richard's Exchange Remedy : a proposal to regulate the Indian Currency. London : 1892.
- LEES (W. K.)—The Drain of Silver to the East and the Currency of India. London (Allen) : 1864. pp. xii + 196.
- MAHINDRA (K. C.)—Indian Currency and Exchange. Triplicane, Madras (Ganesan) : 1922. pp. vii + 252.
- MARRIOTT (E. T.)—The Indian Currency Question. A simple problem. London : 1899.
- MACLEOD (H. D.)—Indian Currency. London : 1898. pp. ix + 55.
- MACLEOD (H. D.)—Scheme for Restoring its Ancient Gold Currency to India. London : 1892.
- MALLIK (Prakas Nath)—The Depreciation of Silver. Calcutta : 1886.
- MANISTY (G. E.)—The Metamorphosis of Silver. Calcutta : 1895.
- MITACHIDES (N.)—Review of the English Administration in India based on the Currency Question, and other Essays. Calcutta : 1894.
- MOLESWORTH (Sir C. G. L.)—Text-book of Bimetallism. Calcutta : 1886.
- MOLESWORTH (Sir C. G. L.)—The Silver Question. Calcutta : 1886.
- MASON (S.)—The Depreciation of Silver, and a Gold Standard for India. Glasgow : 1876.
- MACLAREN (J.)—The Indian Exchange. Thoughts suggested by the fall in the value of Silver. London : 1876.
- MAYNE (John Dawson)—A Review of Mr. Nelson's Letter to the Right Honorable James Wilson, on the Proposal for a Government Paper Currency in India. Madras : 1860.

- "ŒDIPUS IN COLONIA"—The Indian Currency Question, and its Answer. Kingston, Jamaica : 1897.
- O'CONOR (J. E.)—Note on the Effect of a Low Rate of Exchange on the Indian Export Trade. Simla : 1886.
- POLLARD (T. A.)—The Indian Tribute and the loss by Exchange.
- PROBYN (L. C.)—Indian Coinage and Currency. London : 1897. pp. vii+125.
- PIERCY (W. T.)—Manual of Indian Paper Currency. Calcutta : 1887.
- POLLARD (T. I.)—Gold and Silver Weighed in the Balance : a measure of their value : an essay on wealth and its distribution during fluctuations in the value of gold and silver. Calcutta : 1886.
- RUSHFORTH (F. V.)—The Indian Exchange Problem. London (Oxford University Press) : 1921. pp. 114.
- RUSHTON (J.)—Indian Exchange ; how affected by Home charges with tables of Indian imports and exports from 1837 to 1887. Calcutta : 1888.
- RUNCHORELAL CHOTALAL—Letters on the Currency Question. Ahmedabad : 1895.
- SHIRRAS (F.)—Indian Finance and Banking. London. (Macmillan) : 1920. pp. xii+497.
- STEIN (M. A.)—Notes on the Monetary System of Ancient Kashmir. London : 1899.
- SOWERBY (W.)—The Indian Rupee Question, and How to Solve it. London : 1892.
- SPALDING (W. F.)—Eastern Exchange, Currency and Finance. London (Pitman & Sons) : 1918. pp. ix+385.
- SPALDING (W. F.)—Selection from papers relating to the Introduction of a Gold Currency in India. Calcutta (Government Press) : 1899. pp. xviii+532.
- SMITH (Col. J. T.)—On the Depreciation of the Value of Silver with special reference to the exchange between England and India ; and suggestions for a remedy. London : 1878.

- SMITH (Col. J. T.)—Silver and the Indian Exchanges. London : 1878.
- SMEATAN (D. M.)—The Currency of India, an examination of the reasons for a change of the present standard of value, and of the mode of effecting it. Calcutta : 1877.
- SMITH (Col. J. T.)—On the Means of Restoring the Indian Currency to the Value Possessed Previous to 1870, and Fixing the same by Introducing a Gold Coinage. London : 1876.
- SMITH (Col. J. T.)—Remarks on a Gold Currency for India, and Proposal of Measures for the Introduction of the British Sovereign ; also a suggestion regarding international coinage. London : 1868. viii+119.
- STEWART (Sir J.)—The Principles of Money Applied to the Present State of the Coin of Bengal : being an inquiry into the methods to be used for correcting the defects of the present currency. Calcutta : 1772.
- SARMA (S. K.)—Indian Monetary Problems. Madras : 1911. pp. xvi+191.
- STUART-MENTETH (D. P.)—A Review of the Causes which have led to the Depreciation in the Value of the Rupee as a Standard of Currency in connection with the Exchange between India and Great Britain. Simla : 1876.
- STEVENS (G. W.)—In India : 1899.
- SCHMIDT (H.)—The Indian Currency Danger. London : 1893. pp. 38.
- SIDGWICK (Maj. W.)—A Ready Remedy for India's Exchange Difficulties. London and Calcutta : 1886. pp. 37.
- TEALE (J.)—Notes on Indian Currency and the Indian Exchange on London. London : 1892.
- TINKARI DAS—A Practical Treatise on the Currency Question. Calcutta : 1887.
- TENNANT (Major-General J. F.)—Valuations of Coins which are now or have recently been current. Calcutta : 1880.

- THURSTON (Edgar)—Note on the History of the Coinage of the East India Company from 1753-1835. Calcutta : 1893.
- THOMAS (Edward)—The initial coinage of Bengal under the Early Mohammadan Conquerors. London : 1873.
- TIMES OF INDIA—Articles on Indian Currency and Finance. pp. 241.
- TANAN AND SHAH—Indian Currency and Banking Problems. Bombay : 1917. pp. viii+322.
- VICARAGE (F. K.)—Notes on the Hand Minting of Coins in India. Hyderabad (Deccan).
- “VRILL”, (*i.e.* F. A. Perroux)—Currency and Coinage : a guide to the solution of the exchange and allied problems, on the reduction to ultimate factors. Calcutta : 1892.
- WACHA (Dinshah Edulji)—Indian Currency and Military Expenditure. Bombay : 1893.
- WACHA (D. E.)—Indian Currency Commission. Bombay 1913. pp. 112.
- WADIA (Jamsetji Ardasir)—The Artificial Currency and the Commerce of India. Bombay : 1902.
- WAIGHT (A.)—Finance and Foreign Exchange. Madras (S. Ganesan) : 1922.
- WEBB (M. De P.)—Gold for India. Karachi : 1911. pp. 25.
- WEBB (M. De P.)—Indian Currency and Finance. Karachi and London : 1914. pp. 35.
- WEBB (M. De. P.)—Advance India. London : 1913. pp. viii+190.
- WEBB (M. De P.)—Britain's Dilemma—High Prices :— Strikes—Dear Money—Stagnation. London : 1912. pp. xv+262.
- WINSOM (J. C.)—Currency, Exchange and Bullion : considered with reference to the present crisis in the value of silver. Madras : 1876.
- WILLIAMSON (S.)—India, in its Relation to the Silver Question. Liverpool : 1876.

VISWANATHAN (K. P.)—India and the Exchange Standard. Madras (S. Ganesan): 1922.

YULE (G.)—The Currency of India. Calcutta : 1892.

13.—PRICES

DUTTA (K. L.)—Enquiry into the rise of Prices in India (with portions by G. Findlay Shirras). Vol. I. Report. pp. xiv+270 ; Vol II. Statistics of Prices, pp. ix+540 ; Vol. III. Statistics, pp. xi+563. Vol. IV. Statistics, pp. iv+448 ; Vol. V. Charts and maps, pp. 55.

SARMA (S. K.)—A Note on the Rise in Prices in India. Trichinopoly : 1915. pp. 23.

SARMA (S. K.)—Prices and Freights in India since the outbreak of the War (Memorandum and Statistical Tables).

SARMA (S. K.)—Prices and Wages in India (Published by the order of the Governor-General in Council).

14.—PUBLIC FINANCE

(1) *General*—

ANON—How We Tax India ? Leeds : 1858.

ANON—Indian Finance Defended ; a refutation of the opinion generally held that British India is overburdened with debt and taxation. London : 1878.

ANON—Indian Railways and Indian Finance. Bombay : 1869.

ANON—The Finance of India. London : 1853.

ANON—Petition against the Income-tax of the Zamindars of Bengal, Behar and Orrisa to the Imperial Parliament. Calcutta : 1861.

ANON—India as it should be : a paying instead of a burdensome possession of the British Crown.

(OFFICIAL)—Guide Book for Investors in Government of India Securities (Issued by authority of the Government of India). Calcutta (Government Press) : 1921. pp. 83.

- (H. F. B.)—The Indian Finance Difficulty : A Solution. London : 1898.
- ALSTON (L.)—Elements of Indian Taxation. London : (Macmillan). pp. ix+115.
- BATHOE (C.)—An Appeal to the British Public on Behalf of the Indian Taxpayer. pp. 96.
- CRAWFURD (J.)—An Appeal from the inhabitants of British India to the Justice of the People of England : a popular inquiry into the operation of the system of taxation in British India. London : 1839.
- CONNELL (A. K.)—The Financial Condition of India. London : 1889.
- DOCOSTA (C. J.)—The Government and its Finances of India. London : 1879.
- DOCOSTA (J.)—Political and Financial Requirements of British India, as set forth in a petition of the British India Association of Calcutta to both Houses of Parliament. London : 1880.
- DINSHAH ARDESHIR TALEYARKHAN—A Review of the Bombay Taxation Discussion of 1871. Bombay : 1871.
- FAWCETT (Rt. Hon. H.)—Indian Finance. London : 1880. pp. 187.
- HUNTER (Sir. W. W.)—Notes of a Speech on Some Aspects of Indian Finance. London : 1880.
- HECTOR (J.)—The Underlying Principles of Indian Fiscal Administration. London : 1880.
- IDAROF (S.)—British India from a Financial point of view Simla : 1878.
- KNIGHT (R.)—The Indian Empire and our Financial Relations therewith. London : 1866.
- KNIGHT (R.)—Manchester and India. A protest against Sir John Strachey's Financial Statement in the Legislative Council of India. Calcutta.
- KNIGHT (R.)—India : a review of England's financial relations therewith. London : 1868.
- LINGAM LAKSMAJI—Political Economy, with Special reference to Indian Deficits. Vizagapatam : 1870.

- MAZUMDAR (N. M.)**—Indian Financial Administration.
- MOXON (T.)**—Indian Finance. Manchester : 1881.
- MOHINI MOHAN RAY**—Taxation in India : Calcutta : 1889.
- NORTON (G.)**—A New Financial Scheme for India. London : 1857.
- PAGAR (S. M.)**—The Indian Income Tax, its History, Theory and Practice. Baroda (Lakshmi Billas) : 1920. pp. 5+219+2.
- PROBYN (L. C.)**—Is India Solvent ? London : 1880.
- RANADE (Mahadeb Gobind)**—A Note on the Decentralisation of Indian Finance. Poona. 1894.
- SHAH (K. T.)**—Sixty Years of Indian Finance. Bombay (Chronicle Press) : 1921. pp. x+460+xiv.
- STRACHEY (Sir J.) & (Lt. Gen. R.)**—The Finance and Public Works of India from 1869 to 1883.
- STRETTELL (G. W.)**—The New Sources of Revenue for India. London : 1879.
- THORBURN (W. W.)**—India Solvent. Madras : 1880.
- TUCKER (H. H. G.)**—A Review of the Financial Situation of the East India Company. London : 1825. pp. 244.
- VISWANATHAN (K. P.)**—Indian Provincial Finance (Madras Publicity Bureau Prize Essay). Madras (S. Ganesan) : 1922.
- WINGATE (Maj. G.)**—A Few words on our Financial Relations with India. London : 1859.
- WACHA (D. E.)**—Recent Indian Finance.
- WACHA (D. E.)**—Indian Military Expenditure.
- WILSON (J. A.)**—An Empire in Pawn. Lectures and Essays on Indian Finance. London (F. Unwin) : 1909. pp. 336.
- (2) *Land Revenue*—
- ANON.**—The Land Question (Reprinted from the Times of India).
- ANON.**—A Voice from the Zamindari Cuthery on the Rent Law, and the relation between Landlord and Tenant in Bengal. Bombay : 1877.

- ANON.—The Zamindari Settlement of Bengal. 2 Vols. Calcutta : 1879.
- ANON.—Recent English Opinions on the Bengal Tenancy Bill. Calcutta : 1885.
- ANON.—A Protest to the Proposed Cadastral Survey in Behar. Calcutta : 1892.
- ANON.—Considerations on the Land Revenue of India. Bombay : 1863.
- ANON.—Observations on the Law and Constitution of India, on the Nature of the Landed Tenures and on System of Revenue and Finance as established by the Mohammadan (Sic) Law and Moghal government, with an inquiry into the revenue and judicial administration, and the regulations of police at present existing in Bengal. London : 1825.
- ANON.—The relations of Landlord and Tenant in India. Serampur.
- ANON.—How Two Millions have been Lost. Remarks on some recent Settlements in the Punjab. Lahore : 1872.
- ANON.—Our Land Revenue Law. Bombay : 1888.
- ANON.—The New Land Revenue Policy of the Bombay Government : taxation of Subsoil Water at the forthcoming Revision Settlement in Gujrat. Bombay : 1884.
- ANON.—Land Revenue in Bombay and Central Provinces, cost of its collection compared. Bombay : 1870.
- ANON.—Considerations on the Land Revenue of India. Bombay : 1863.
- ANON.—How the Permanent Settlement Pays. (Printed from the 'Times of India') : Bombay : 1862.
- ANON.—Notes on the Draft Rent Bill. By a member of the British India Association. Calcutta : 1880.
- "AN INDIAN CIVILIAN"—Mr. Dutt and Land Assessments. Calcutta : 1900.
- "A LOVER OF JUSTICE"—The Permanent Settlement imperilled ; or Act X of 1859 in its true colours. Calcutta : 1865.

- "A COLLECTOR"**—Suggestions on the Land Revenue of India—its past, present and future. Calcutta : 1864.
- "A NATIVE"**—A Speech delivered at Midnapur on the amelioration of the condition of the ryot population of Bengal. Bhowanipur : 1856.
- ANDREW (Rev. A.)**—Indian problems connected with Education, Agriculture and Land Revenue. Madras : 1905.
- ASUTOSH MUKHOPADHYAYA**—An Examination of the Principles and Policy of the Bengal Tenancy Bill, written at the request of the Central Committee of Landholders. Calcutta : 1884.
- ASUTOSH MUKHOPADHYAYA**—The Annals of British Land Revenue Administration in Bengal, from 1698 to 1793. Calcutta : 1883.
- ASUTOSH MUKHOPADHYAYA**—The Proposed New Law for Bengal and Behar. Calcutta.
- AMIR HAIDAR BILGRAMI**—Dissertation concerning the Revenues of Government, and of Landed Tenures, according to Mohammadan Law. Translated by Francis Gladwin. Calcutta : 1796.
- ASCOLI (F. D.)**—Early Revenue History of Bengal and the 5th Report (1812). Oxford : 1917. pp. 272.
- BADEN-POWELL (B. II.)**—The Land System of British India. 3 Vols. Oxford : 1892. Vol. I. pp. xviii+699. Vol II. pp. 771. Vol. III. pp. 548.
- BADEN-POWELL (B. H.)**—A Short Account of the Land Revenue and its Administration in British India. Oxford : 1913. pp. vi+268.
- BADEN POWELL (B. H.)**—A Manual of the Land Revenue Systems and Land Tenures of British India. Calcutta : 1882.
- BAILLIE (N. B. E.)**—The Land Tax of India according to the Mohammadan Law. Translated from the Futawa Alumgeree. London : 1873.
- BRIGGS (Major General J.)**—The Present Land Tax of India Considered as a measure of Finance. London : 1880.

- CONNEL (C. J.)—Our Land Revenue Policy in the Northern India. Calcutta : 1876.
- COTTON (Sir H. J. S.)—Memorandum on the Revenue History of Chittagong. Calcutta : 1880.
- CARNEGIE (Patrick)—Notes on the Land Tenures and Revenue Assessments of Upper India. London : 1874.
- CURRIE (R. G.)—On the Introduction of the Permanent Settlement of the Land Tax in the N. W. P. Roorkee : 1864.
- DUTT (R. C.)—Land Problems in India. Madras : 1902.
- DUTT (R. C.)—Open Letters to Lord Curzon and Speeches and Papers, etc. Calcutta : 1904.
- DYKES (J. W. B.)—The Ryotwari Tenure. Madras : 1858.
- FURNIVALL (J. S.)—The Tenures Myingyan. Rangoon : 1912.
- FIELD (C. D.)—Landholding, and the Relation of the Landlord and Tenant, in Various Countries. Calcutta : 1885.
- FRANCIS (Sir Philip)—Sir Philip Francis, Minutes on the Subject of a Permanent Settlement for Bengal, Behar and Orissa. Calcutta.
- FUTWA ALUMGEEREE—The Land Tax of India according to the Mohammadan Law.
- GANGA RAM (Rai Bahadur)—A Novel Method of redemption of Land Revenue with a System of financing Industries. pp. 12.
- GRANT (James)—An Inquiry into the Nature of Zemindary Tenures in the Landed Property of Bengal. London : 1810.
- GREEN (H.)—The Deccan Ryots and their Land Tenure. Bombay : 1852.
- HARA PRASAD CHATTOPADHYAYA—Observations on Rent Law. Calcutta : 1881.
- HEARD (H. H.)—Ghatwali and Mul Raiyati Tenures, as found in the Deoghur Sub-Division of the district of the Santhal Parganas. Colchester : 1900.
- HECTOR (J.)—The Permanent Settlement Problem. Can the Land be redeemed? Calcutta : 1875.

- HARENDRA NARAYAN CHAUDHURI**—The Cooch Behar State and its Land Revenue Settlements. Cooch Behar : 1908.
- HODGSON (J.)**—A Description of the Agricultural and Revenue Economy of the Village of Pudu-Vayal in that part of the Peninsula of India called the Carnatic. London : 1829.
- JOGENDRA NATH BHATTACHARYA**—On the Rent Controversy in Bengal. Calcutta : 1878.
- JUVESILAL UMIASHANKER YAJNIK**—Observations on the Land Improvement Loans Act, 1883. Bombay : 1884.
- KESHAB CHANDRA ACHARYA**—Rent Question in Bengal. Mymensingh : 1879.
- KEAY (Sir J. S.)**—The Upper and Nether Millstones ; or the Land Revenue System of British India. Calcutta : 1884.
- KAYE (Sir J. W.)**—The Permanent Settlement of Bengal. Calcutta : 1885.
- MURDOCK (J.)**—A Letter to the Earl of Elgin on the Rent question of Bengal 1863.
- MORRISON (M.B.)**—My Experience of 'Agricultural Behar and Beharees, and some thoughts on the Bengal Tenancy Act. Calcutta : 1884.
- MORELAND (W.)**—Revenue Administration of the United Provinces. Allahabad, (Pioneer Press): 1911. pp. xiv+203.
- NANAVATI (Manikji Nasarvanji)**—The Revenue Survey and Settlement of the Bombay Presidency as contrasted with the Land Systems of Lord Cornwallis and of the North-Western Provinces. Bombay : 1872.
- PHILIPS (H. A. D.)**—Our Administration in all departments with special reference to the work of a district office in Bengal. London : 1886.
- PARGITER (F. E.)**—A Revenue History of the Sunderbans from 1765-1870. Calcutta : 1885.
- PARBATI CHARAN RAY**—The Rent Question in Bengal. Calcutta : 1883.

- PATTULLO (H.)**—An Essay upon the Cultivation of the Lands and Improvements of the Revenues of Bengal. London: 1772.
- RAJKUMAR SARBADHIKARI**—The Talukadari Settlement in Oudh. Calcutta : 1882.
- RAMANYACHARIAR (V. K.)**—Land Revenue Settlement. Adyar : 1917.
- RAM MOHAN ROY (RAJA)**—Exposition of the Practical Operation of the Judicial and Revenue System of India and of the General Character and Condition of its Native Inhabitants. London : 1832.
- RAM SANKAR LAL**—A Scheme for the Improvement of the Agriculture, and a few suggestions in connection with the Land Revenue policy of Government. Lucknow : 1882.
- RAY (Bankim Chandra)**—The Bengal Zamindars. Calcutta : 1904.
- RAY (S. C.)**—Land Revenue Administration in India. Calcutta : 1915. pp. vii + 135.
- RAY (S. C.)**—The Permanent Settlement in Bengal. Calcutta : 1915. pp. 123.
- ROBERTSON (H. D.)**—Examination of the Principles and Policy of the Government of British India, embracing a Particular inquiry concerning the Tenure of Lands.
- ROGERS (A.)**—The Land Revenue of Bombay. London : 1873.
- ROGERS (A.)**—The Land Revenue of Bombay. A History 2 Vols. London. 1892. Vol. I. pp. ix + 353. Vol. II. pp. 424.
- RUSE (C. W. B.)**—Dissertation Concerning the Landed Property of Bengal. London : 1791.
- SANJIB CHANDRA CHATTOPADHYAYA**—Bengal Ryots, their Rights and Liabilities, being an elementary treatise on the Law of Landlord and tenant. Calcutta : 1864.
- SARKAR (Jadunath)**—Mughal Administration. Calcutta (M. C. Sarkar & Sons): 1920. pp. 152.

- STOWELL (V. A.)—A Manual of the Land Tenures of the Kumaun Division. Allahabad (Government Press): 1907. pp. x+156.
- SULLIVAN (Rt. Hon. J.)—Sketch of the Ryotwari System of Revenue Administration. London.
- SYKES (Lieut. Col. W. H.)—Land Tenures of the Deekhun, etc. London: 1836.
- TODAR MAL—Notes on Indian Land Revenue. Bombay: 1883.
- THOMAS (E.)—The Revenue Resources of the Moghal Empire in India from A. D. 1593 to A. D. 1707. London: 1871.
- TUCKETT (II.)—The Indian Revenue System as it is. London: 1840. pp. 172.
- VENKATACHELLA NAICKER (A.)—The Poyakharries *versus*. Mccrassidars, or the Revenue System of Madras Madras: 1870.
- WEST (Sir R.)—The Land and the Law in India. Bombay: 1873.
- WEDDERBURN (Sir W.)—Gleanings from Indian Blue Books. Revenue Enhancements. Bombay: 1882.
- WEDDERBURN (Sir W.)—A Permanent Settlement for the Deccan. Bombay: 1880.
- YOUNG (Maj. G.)—A Further Inquiry into the Expediency of Applying the Principles of the Colonial Policy to the Government of India, and of Effecting an Essential Change in its Landed tenures. London: 1828.
- (OFFICIAL)—Punjab Land Administration Acts. Lahore ("Civil and Military Gazette" Office): 1910. pp. xii+312.

(3)—*Tariffs*—

- The Indian Import Duties on Cotton goods. Deputation to the Secretary of State for India, from the Cotton Industry of Lancashire. Manchester: 1895.
- BANERJEA (Pramathanath)—Fiscal Policy in India. Calcutta (Macmillan & Co.): 1922. pp. iii+256.
- LETHBRIDGE (Sir Roper)—India and the Imperial Preference. London: 1907. pp. xii+171.

MACLEAN (J. M.)—Free Trade with India, India's Place in an Imperial Federation. London : 1904.

SMITH (H. B. Lees)—India and the Tariff Problem. London : 1909. pp. vii+120.

WEBB (M. de P.)—India and the Empire. London : 1908. pp. xxiv+193.

WILSON (A. J.)—An Empire in Pawn : lectures and essays on Indian Colonial and domestic finance, "preference," free-trade, etc. London : 1909. pp. 226.

WHITTAKER (J.)—The Imposition of the Indian Duties on Cotton Goods and Yarn. Manchester : 1895.

WACHA (D. E.)—Near Future of Imperial Finance.

(4)—*Public Debt*—

ANON.—Debt and the Right use of Money. Madras : 1887.

AIYAR—The Sterling Debt of India.

(5)—*Other Heads of Income and Expenditure*—

Remarks on the Salt Monopoly of Bengal and the Report from the Board of Customs, Salt, and Opium, 1832. London : 1836.

The Injustice and Oppression of the Abkari Department, as exhibited in the petition of the toddy merchants. Madras : 1859.

Notes on the Taxation of Toddy in Bombay. Bombay.

BRUCE (Lieut.-Col. H.)—Salt Sources of India and the Customs Preventive Establishment of the North-Western Provinces, Central Provinces, and the Punjab. Calcutta : 1863.

KNIGHT (Robert)—Fiscal Science in India, as illustrated by the Income Tax. Bombay : 1870.

LETHBRIDGE (Sir Roper)—The Tea duties. London : 1906.

PEGGS (Rev. James)—Pilgrim Tax in India. Facts and observations, relative to the practice of taxing pilgrims in some parts of India and paying a premium to those who collect them for the worship of Jaggernaut. London : 1830.

- REES (J. D.)—Tea and Taxation. Woking : 1904.
- RUSDEN (R. D.)—The Indian Salt Tax. Manchester : 1881.
- SHIBLI NUMANI (Maulvi)—The Jazia or Capitalization Tax. Translated from Urdu. Aligarh : 1894.
- SAMBIHU CHANDRA MUKHOPADHAYA—Mr. Wilson, Lord Canning and the Income Tax. Calcutta : 1860.
- WACHA (D. E.)—Indian Military Expenditure.

(6)—*Opium*—

- The Opium Revenue of India. Is it right to take three millions sterling from the Chinese beyond the cost price of the drug, as the condition of their enjoying the forbidden indulgence of opium smoking ? London : 1857.
- ALEXANDER (J. G.)—Substitutes for the Opium Revenue. London : 1892.
- ALEXANDER (Maj.-Gen. R.)—Contraband Opium Traffic, the disturbing element in all our policy and diplomatic intercourse with China. London : 1857.
- ALEXANDER (Maj.-Gen. R.)—The Rise and Progress of British Opium Smuggling : the illegality of the East India Company's monopoly of the drug ; and its injurious effects upon India, China, and the Commerce of Great Britain. London : 1856.
- ALEXANDER (Maj.-Gen. R.)—Opium Revenue of India. The Question answered, that it is not right to break the laws of England and of China. London : 1857.
- BERTON (W. H.)—The Truth about Opium. London : 1882.
- CHRISTLIEB (Rev. T.)—The Indo-British Opium Trade and its Effect. London : 1881.
- CUST (R. N.)—The Indo-Chinese Opium Question as it stands in 1893. Hertford : 1894.
- FOSTER (A.)—The Report of the Royal Commission on Opium, compared with the evidence from China that was submitted to the Commission. London : 1899.

- MOORE** (Sir W. J.)—The Other Side of the Opium Question. London : 1882.
- MATHESAN** (D.)—What is Opium Trade ? Edinburgh : 1857.
- MANDER** (S. S.)—Our Opium Trade with China. London : 1877.
- ROWNTREE** (J.)—The Imperial Drug Trade. A re-statement of the opium question. London : 1905.
- TURNER** (F. S.)—British Opium Policy, and its results to India and China. London : 1876.
- TYLER** (Sir H. W.)—Indian Revenue from Indian Opium : Chinese money at the expense of Chinese life ; British honour or British disgrace. London : 1857.
- THELWALL** (Rev. A. S.)—The Iniquities of the Opium Trade with China. London : 1839.
- YOUNG** (J. H.)—Notes on the Opium Traffic : its nature and relations, and the duty of the British Public regarding it. Hongkong : 1850.

15.—PUBLIC WORKS

(1)—*General*.—

- BOURNE** (John)—Public Works in India. London : 1856.
- BELL** (Maj. Evans) and **TYRRELL** (Lieut.-Col. Frederick)—Public Works and the Public Service in India. London : 1871.
- COTTON** (Lt. Col. A.)—Public Works in India. 1854. pp. xviii+288.
- CONNELL** (A. K.)—The Economic Revolution of India and the Public Works Policy. London : 1883. pp. ix+208.
- COLAH** (P. R.)—Undeveloped Wealth of India and State Reproductive Works. London : 1874. pp. xvi+395.
- DICKINSON** (J.)—An Address to the Members of the House of Commons on the Relation between the Cotton Crisis and Public Works in India. London : 1862.
- GREEN** (Col. Charles)—Memorandum on Public Works in Mysore. Bangalore : 1846.

JEFFERIES (T. W. B.)—National Credit, and Public Works. Kurrachee : 1871.

MACGEORGE (G. W.)—Ways and Works in India. London : 1894. pp. vi+565.

STRACHEY (Sir J.)—Finance and Public Works of India 1869-1881. London (Paul, Trench & Co.) : 1882. pp. xx+467.

THORNTON (W. T.)—Indian Public Works. London : 1875. pp. xi+278.

(2)—*Railways*—

Indian Railways -- An Argument for a Government Monopoly in Preference to Private Enterprise. Calcutta : 1884.

An Old Indian Post-master—Indian Railways ; as connected with the power and stability of the British Empire in the East. London : 1846.

The English Press on the Proposed Construction of Railways in India by Government Agency. London : 1869.

Indian Railways and Indian Finance. Bombay : 1869.

Our Indian Railways. Their Present condition and future prospects. Bangalore : 1860.

ANDREW (Sir William P.) —Indian Railways as connected with the British Empire in the East. London : 1884.

BELL (H.) —Railway Policy in India. London : 1894.

CHATTERTON (C. J.)—Railway Business with the Jute Trade. Calcutta : 1904.

CLARKE (H.) —Colonization, Defence, and Railways in our Indian Empire. London : 1857.

DENISON (Sir W.)—Roads and Railways in New South Wales and India. Madras : 1864.

DICKSON (John)—Remarks on the Indian Railway Reports Published by the Government and Reasons for a Change of Policy in India. London : 1862.

DAVIDSON (Cap. E.)—The Railways of India. London : 1868.

- DORABJI EDALJI GINI—The Social and Economic Effects of the Introduction of Railways into India. Bombay : 1870.
- FINNEY (S.)—Railway Management in Bengal. Calcutta : 1896.
- GEORGE (E. M.)—Railways in India. Their economic construction and working. London : 1894.
- GRANT (Lieut.-Col. C. W.)—Bombay Cotton and Indian Railways. London : 1850.
- GHOSE (S. C.)—A Monograph on Indian Railway Rates. Calcutta (Supt. Government Printing, India) : 1918. pp. xxvi+595+xxiv.
- GHOSH (S. C.)—A note on State *versus* Company Management of Indian Railways.
- HUDDLESTON (G.)—History of the East Indian Railways. Calcutta (Thacker Spink) : 1906. pp. ix+281.
- KENNEDY (Lieut.-Col. J. P.)—Principles of Railway Construction analysed in reference to their financial effects on shareholders and on British, Colonial, and Indian interests. London : 1857.
- LOGIN (T.)—Roads, Railways and Canals for India. Roorkee. 1866.
- LOGIN (T.)—Traffic on Roads, Railways and Canals in India. Roorkee : 1867.
- MACBEAN (S.)—England, Palestine, Egypt and India, Connected by a Railway System. London : 1876.
- MEHTA (R. D.)—The Indian Railway Economics. Calcutta : 1912.
- MORELAND (Sir G. L.)—Indian Railway Policy (Indian Railway Series). Compiled by Dadachandji.
- PERRY (H. W.)—The Great Railway Freight-Car Problem and its Cheapest and Best Solution. Madras : 1907. pp.101.
- ROSS (D.)—Military Transport by Indian Railways. Lahore : 1883.

ROBERTSON (T.)—Report on the administration and working of Indian Railways.

STONE (E. H.)—The Nizam's State Railway. London : 1876.

STEPHENSON (R. M.)—Report upon the Practicability and Advantages of the Introduction of Railways into British India. London : 1844.

SATAKADI GHOSH—Indian Railways and Indian Trade. Calcutta : 1911.

WACHA (D. E.)—Indian Railway Finance. Madras : 1912. pp.viii+61.

(3)—*Irrigation*—

APJOHN (J. H.)—Navigation Canals in India. Calcutta : 1895.

BUCKLEY (Robert Burton)—The Irrigation Works of India, and their financial results. London : 1880.

BUCKLEY (Robert Burton)—The Irrigation Works of India. London : 1905.

CHATTERTON (A.)—Lift Irrigation. Madras (Natesan). pp. xi+240.

CAUTLEY (Col. Sir P. T.)—The Ganges Canal. A valedictory note to Major-General Sir Arthur Cotton, respecting his pamphlet the Ganges Canal. London : 1864.

DICKENS (Lieut.-Col. C. H.)—A Project for Canals of irrigation and Navigation from the River Sone in South Bihar. 2 parts. London : 1864.

DEAKIN (A.)—Irrigated India. An Australian View of India and Ceylon. 1893. pp. x+322.

MAWSON (E. O.)—Note on the Protection from Drought of Areas Subject to Scarcity and Famine. Rajkot : 1901.

MACKENZIE (N. F.)—Notes on Irrigation works. London (Constable) : 1910. pp. viii+111.

PRINCEP (E. A.)—How to make State Canals without Borrowing. Lahore : 1870.

ROBINSON (A.)—Account of some Recent Improvements in the System of Navigating the Ganges. London : 1848.

WATCH (George T.)—The Engineering works of the Kistna Delta, a Descriptive and Historical Account. Vols. I. and II. Madras (Government Press) : 1909. pp. ix + 189 and 37 maps.

16.—CENSUS AND VITAL STATISTICS

KAMATH SUBRAHS (M.)—The Census of India ; an Analysis and Criticism. Madras : 1914. pp. 141.

WATTAL (P. K.)—The Population Problem in India. Bombay : 1916. pp. iii + 83.

17.—LOCAL SELF-GOVERNMENT

PAL (Radha Charan)—A Rapid History of Municipal Government in Calcutta. Calcutta : 1916.

PATRO (A. P.)—Studies in Local Self Government, Education and Sanitation. Madras (Natesan).

SARKAR (Nilin Behari)—Municipal Taxation of Port Property. Calcutta : 1893.

SARKAR (Nilin Behari)—A Note on the collection of Municipal Rates and the Cost thereof. Calcutta : 1893.

STERNDALE—Municipal Work in India.

TURNER AND GOLDSMITH—Sanitation in India. Bombay (Times of India Press) : 1917. pp. xii + 1055 + vi.

WACHA (Dinshah Edulji)—A Financial Chapter in the History of Bombay City. Bombay : 1910. pp. iii + 224.

WACHA (Dinshah Edulji)—Bombay Municipal Government. Bombay. pp. viii + 455.

FORREST (H. T. S.)—The Indian Municipality and some Practical Hints on its everyday work. Calcutta : 1909.

18.—TOWN PLANNING

- AYYAR (C. P. Venkatarama)—Town Planning in Ancient Deccan. Madras (Law Printing House) : pp. xxi+199.
- GEDDES (Patrick)—Town-Planning in Lucknow. A report to the Municipal Council. London ; (Murray) 1916. pp. 107.
- GEDDES (Patrick)—Town Planning towards city Development. A Report to the Durbar of Indore. 2 vols. Indore (Holkar State Press) : 1918. Vol. I pp. xvii+203+10 plans, Vol. II. pp. xiv+205+xxvii+xiii.
- LANCHESTER (H. V.)—Town Planning in Madras.
- STEPHENS (J. H.)—Plague-Proof Town-Planning in Bangalore, South India. Madras (Methodist Publishing House) : 1914. pp. 107.

19.—JOURNALS

- INDIAN JOURNAL OF ECONOMICS—Published Quarterly (later irregularly) by the Economics Department, University of Allahabad, and by Macmillan & Co. Ltd. London, Bombay and Calcutta. Vol I. (1916-17), pp. viii+528+6 ; Vol. II (1918-19), pp. viii+712 ; Vol. III (1920-22), pp. viii+568.
- BENGAL ECONOMIC JOURNAL.—Published by the Bengal Economic Association three times yearly, also by Macmillan & Co. Ltd. Calcutta. Vol I. (1916-17) Parts 1 to 3 ; Vol. II., Parts 1 to 3. Ceased publication.
- JOURNAL OF THE INDIAN ECONOMIC SOCIETY.—Published four times yearly for the Indian Economic Society from the Servants of India Society's Home, Sandhurst Road, Bombay, Vol I (Commenced March, 1918) ; Vol. II (1919) pp. 232 ; Vol. III (1920) ; Vol. IV (1921) ; Vol. V (1922) ; current.
- MYSORE ECONOMIC JOURNAL.—Published monthly by the Manager, Mysore Economic Journal, Mangalpet, Bangalore City, S. India. Vol. I (1915), pp. 658+3 special supplements ; Vol. II (1916) pp. 658+suppt. ; Vol. III. (1917), pp. 651+Suppt. ; Vol. IV (1918), pp. 812 ; Vol.

V (1919), pp. 975 ; Vol. VI (1920), pp. 771 ; Vol. VII (1921) Vol. VIII (1922), pp. 686. Current.

WEALTH OF INDIA—Published by G. A. Vaidyaraman & Co., Mambalam, Madras. Vol. I (1912) to Vol. IX (1920) monthly, thereafter quarterly Vol. X (1921), etc. Current.

JOURNAL OF INDIAN INDUSTRIES AND LABOUR—Edited by the Department of Industries and published four times yearly by the Superintendent Government Printing, India, Calcutta, Vol. I (1921) ; Vol. II (1922), Current.

20.—WEEKLY TRADE PERIODICALS

INDIAN TRADE JOURNAL—Officially published by the Commercial Intelligence Department, Calcutta. 4 Vols. yearly ; lxiv to lxvii (1922). Current.

"CAPITAL"—Published by W. H. Targett & Co. Clive St., Calcutta. 2 Vols. yearly : lxviii and lxix (1922). Current.

"COMMERCE"—Published by "Commerce, Ltd.", 6, Mission Row, Calcutta. 2 Vols. yearly : xxiv and xxv (1922). Current.

21.—ANNUALS

STATISTICS OF BRITISH INDIA.—Department of Statistics, India. Published by Superintendent of Government Printing, India, Calcutta. Vol I, Commercial ; Vol. II, Financial ; Vol. III, Public Health ; Vol. IV, Administration ; Vol. V. Education. Fourteenth issue (1920-21).

STATISTICAL ABSTRACT RELATING TO BRITISH INDIA—Published by H. M. Stationery Office, London (Paper by command). Fifth-fifty issue : 1910-11 to 1919-20 (1922).

MORAL AND MATERIAL PROGRESS OF INDIA.—Published by H. M. Stationery Office, London (Parliamentary Paper). Yearly for 1863-64 to 1916-17. Thereafter substituted by India in 1917-18 etc., Also decennial reports, last for 1911-12 and nine preceding years.

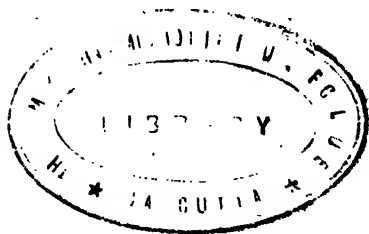
INDIA IN 1918 (in 1919, in 1920, etc.)—Report to Parliament in place of the "Moral and Material Progress" Supt. Govt. Printing, India, Calcutta.

INDIAN YEAR BOOK—Edited by Sir Stanley Reed. Pubd. by Bennett, Coleman & Co., Bombay, and 187 Fleet St. London.

INDIA INVESTOR'S YEAR BOOK—Balance Sheets of Companies in India. Published by Messrs. Place, Siddons and Goush, Calcutta.

PROCEEDINGS OF THE ANNUAL CONFERENCES OF THE INDIAN ECONOMIC ASSOCIATION: 1st Conference, Calcutta, 1918; Bombay, 1919; Madras, 1920; Allahabad, 1921; Patna, 1922; Lahore, 1923. To be had from Messrs. Macmillan & Co. Ltd., Calcutta, or from Prof. R. M. Joshi, Hon. Sec. Indian Economic Association, Sydenham College of Commerce, Bombay.

PROCEEDINGS OF THE INDIAN INDUSTRIAL CONFERENCE—Published by the Secretary, Conference Office, Bombay.





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